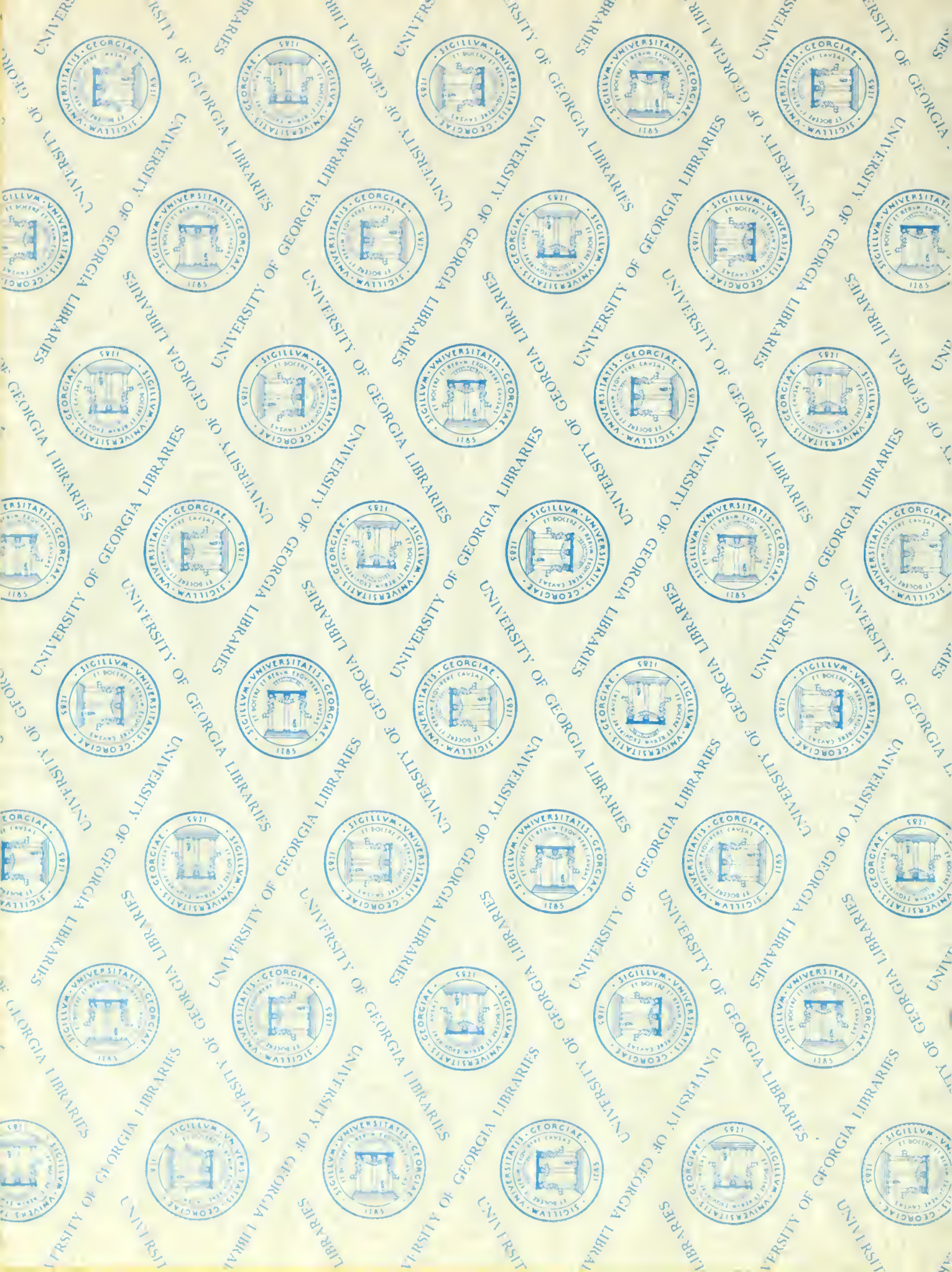
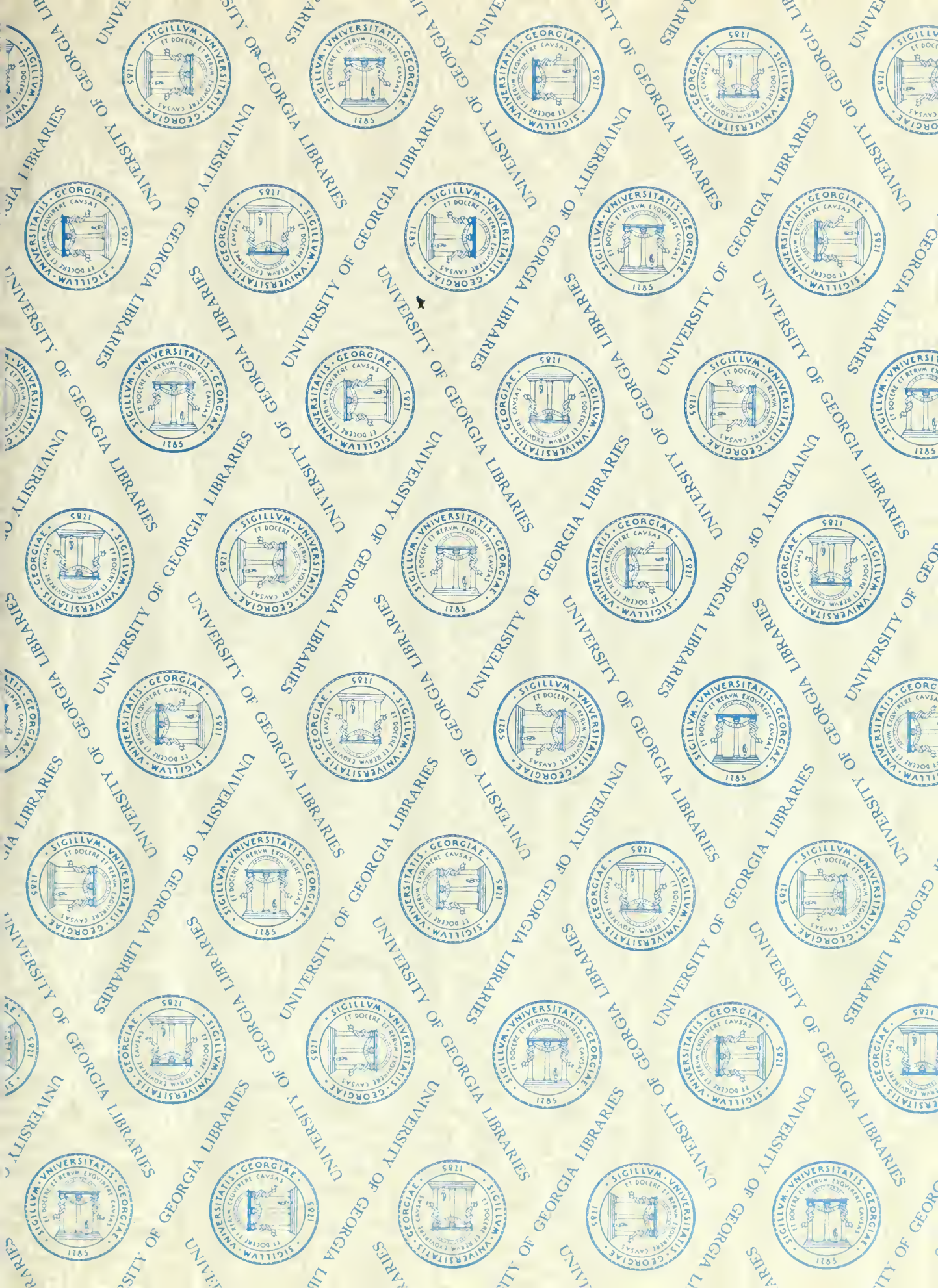


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Georgia Forestry Commission



Acknowledgements

The Southern Region,

U. S. Forest Service

supplied a portion of the

forest survey information

and drawings

included in this

publication.



GUYTON DeLOACH
Commission Director and
State Forester

K S VARN
CHAIRMAN
WAYCROSS
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DONALSONVILLE
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MACON
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ALBANY



GEORGIA FORESTRY COMMISSION
STATE CAPITOL
ATLANTA

January 1, 1955

GUYTON DeLOACH
DIRECTOR

To The Governor of Georgia
The Ganaral Assembly
The Paopla of Gaorgia

In accordance with Saction 9 of the Act approved March 5, 1947, (as amended), I take pleasure in submitting this report of progress of the Georgia Forestry Commission for the calendar years 1953 and 1954.

Forestry in Georgia stands today at the highest level of scope and achievement. The record advancements of the past decade hava brought the stata into the national and regional forafront in forest production and forestry activitias. The closely coordinated efforts of the Commission and industry, privata organizations and public agancias have brought the state to its high standing.

Forestry in Georgia is big business-owned and operated primarily by small owners-and the economic progress of the state and her peopla is closely paralleled with the advancements in forast production. The output of forest industries, forest employment, and the marketing of forest products exceeds \$750 million annually and comprisas approximately one-fifth of the total yearly economy of the stata. Every county in Georgia has forest lands and forest industries which contributa to the state's industry, amploymnt and wealth-every sagment of our populetion enjoys the benefits of the woodland resource.

As great as are our accomplishments, evan greater are our opportunities. Notwithstanding the stata's present record forest output, the production of Georgia's woodlands can be more than doubled through adaquate protection, sound management and wisa utilization. Rasaarch and education point the way toward the achievement of this goal-a goal which will bring to all Gaorgians greatly increased benefits and an enhanced laval of aconomic welfare.

The challenge and the opportunity ere before us. It is imperative thet the Commission's activitias in forest protection, forest management, nursery production, reforestation, public aducation and resarch be continually broadened and intensified.

Respectfully submitted,

Guyton DeLoach
Guyton DeLoach
Director

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THE BOARD
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COMMISSIONERS

K. S. VARN
Waycross—Chairman



C. M. JORDAN, JR.
Alamo



JOHN M. McELRATH
Macon



SAM MORGAN
Savannah



HENRY O. CUMMINGS
Donalsonville



Georgia's Forestry



First in South in lumber production.

First in nation in protected acreage of private and state lands.

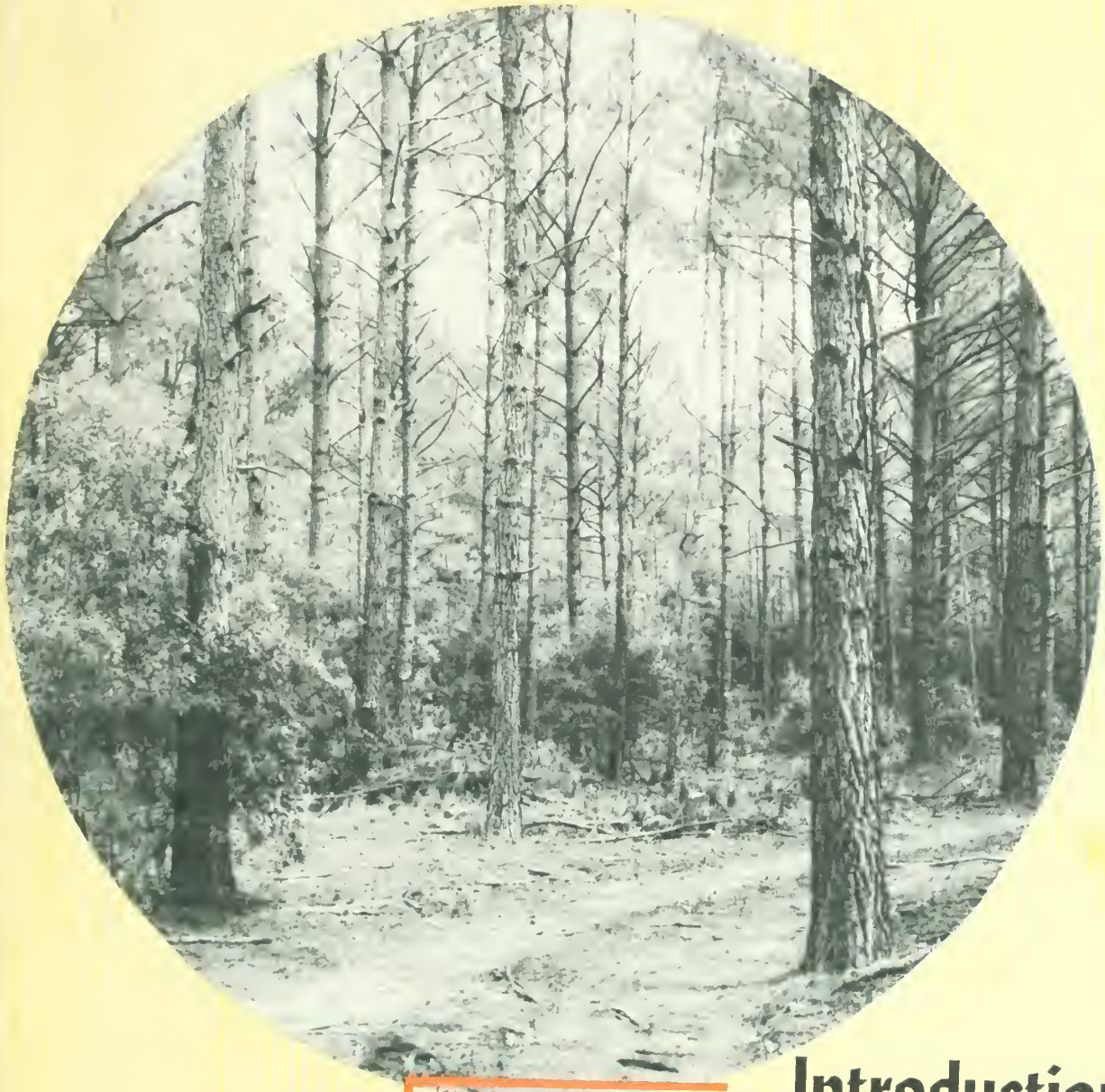
First state in the nation to license foresters.

First in South in pulpwood production.

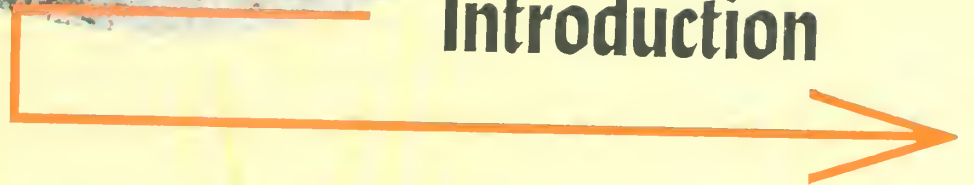
Naval stores capital of the world

First in nation in privately-owned forest acreage

First in nation in area replanted yearly to trees.



Introduction



Introduction

Georgia's forests—aggregating 23,973,300 acres—constitute her most valuable and extensive crop and one of the state's greatest natural resources. The progress of Georgia and her people is linked almost indissolubly with the state's forestry progress. Production of forest industries, forest employment, and the marketing of forest products aggregate \$750,000,000 yearly and comprise approximately one-fifth of the total economy of the state.

State forestry in Georgia stands today at the highest level of scope and achievement in history. The record advancements of the past decade have brought the state of Georgia and the Commission into the national and regional forefront in forest production and forestry activities. The Commission has led in the closely coordinated efforts of industry, private organizations and public agencies which have brought the state to its present high position.

Georgia now leads the entire nation in the amount of private and state forestland under organized fire protection, with 20,251,862 acres under the jurisdiction of County Forestry Units in 137 counties.

Effective fire prevention is the prime need in fire protection in Georgia. Fire occurrence must be reduced if the acreage burned yearly is to be lowered and the per-acre expenditures for fire control are to be held at present levels. Efficiency of the County Forestry Units has already reduced the acreages burned and the sizes of fires to a minimum at the present rate of fire incidence.

Special advancements were made during the past two years in preparations for, and perfecting methods of handling, major fire emergencies. These improved methods and preparations resulted from actual experience gained during

the major fire emergencies encountered in North Georgia during each of the last two years.

Carefully compiled and highly detailed fire prevention plans have been formulated for the various types of fire outbreaks and major fire emergencies which may develop on the county, district, regional or state level.

The instituting of good cutting practices on Georgia's forest lands is the principal need of forestry in the state today, with the major problem centered in North Georgia. Advancements in forest protection and good harvesting methods in South Georgia are reflected in the increased growing stock in that part of the state. Conversely, in Northeast and Northwest Georgia, destructive cutting practices have caused large reduction in growing stock in the past decade. To meet this need and supply the solution to this problem, the Commission's management division has made progressive steps during the past year and plans an extensive program designed to bring an increased number of forest acres under well-integrated forest management plans.

Research, public education, and increased services to landowners point the way to better forest management in North Georgia, and efforts of the Commission in these phases will be multiplied.

Chief among the forward steps in the Commission's management activities during the past two years was the changing of the policy to provide maximum services to the group owning nearly three quarters of the forests of the state—the small landowner.

Other accomplishments include placing of the Waycross State Forest under a permanent management plan and initiating an experiment in clearing scrub hardwood stands and planting with pines.

With Georgia now leading the nation in acres planted
(Continued on page 10)



GEORGIA'S TREES — HER GREATEST CROP

Cash Value Received by Landowners for All Forest Products—
\$167,000,000.

Combined Value Corn and Cotton — \$148,642,000



TENNESSEE NORTH CAROLINA

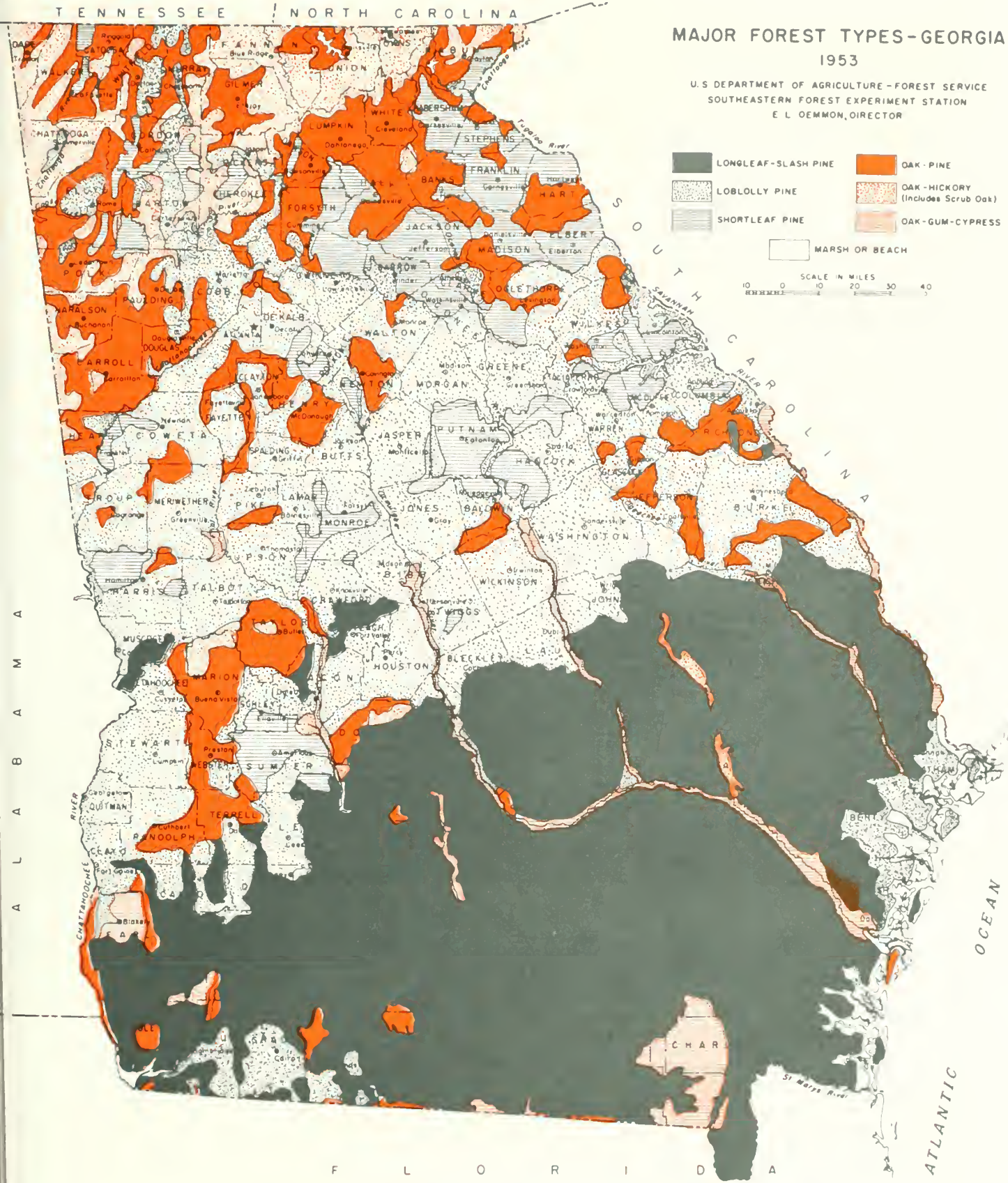
MAJOR FOREST TYPES-GEORGIA

1953

U.S. DEPARTMENT OF AGRICULTURE-FOREST SERVICE
SOUTHEASTERN FOREST EXPERIMENT STATION
E. L. OEMMON, DIRECTOR

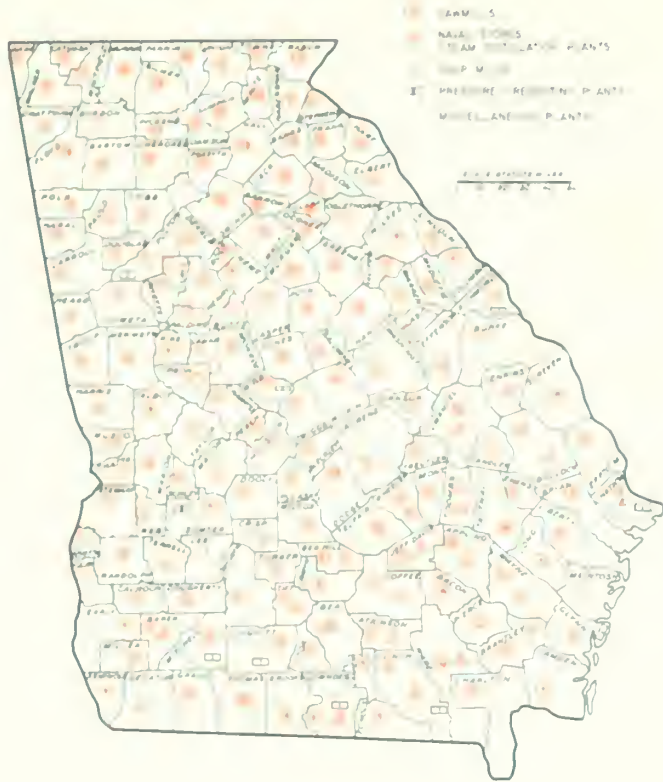
-  LONGLEAF-SLASH PINE
-  OAK-PINE
-  LOBLOLLY PINE
-  OAK-HICKORY (Includes Scrub Oak)
-  SHORTLEAF PINE
-  OAK-GUM-CYPRESS
-  MARSH OR BEACH

SCALE IN MILES
0 10 20 30 40
1:1,000,000



Georgia is a great tree-growing state. Valuable forests are found in every section of the state.

WOOD MANUFACTURING PLANTS



Georgia's thousands of forest industries are a major factor in the economy of every section of the state. Every county has one or more wood-using industry.

(Continued from page 8)

yearly to trees, the reforestation division faces the task of producing sufficient seedlings to meet fully the public demand and to speed up the restocking of the 3 1/2 million acres of Georgia forestland which must be planted to trees to be productive. During the 1952-53 planting season, nearly 100,000,000 seedlings were distributed to land-owners from the state nurseries. During the current planting season, the production is expected to reach 132,000,000 seedlings—a quantity sufficient to reforest more than 140,000 acres of idle land.

A complete cone handling and seed processing center has been established by the Commission in Macon—a strong answer to the current southwide shortage of good quality pine seed for planting. In cooperation with the U. S. Forest Service, the Commission is also establishing a southwide seed testing center at the same site.

Establishing of seed orchards from which superior strains of southern pine will be produced is expected to give Georgia the prominence in seedling quality it now enjoys in the field of overall seedling production.

The Commission's information and education activities reached record proportions during the last two years. Highlights of these advancements include the publication of nearly 18,000 articles on forestry in the state daily and weekly newspapers, publication of 105 special forestry editions of newspapers, increased circulation and improvement of "Georgia Forestry", production of a 52-week musical radio series featuring hillbilly and folk music, distribution of more than three million pieces of literature to the public, and a greatly increased showing of movies by field personnel. Other phases included the production and field use of new portable exhibits, conducting Youth Forestry Camps, the production of an outstanding booklet on disease and insect control, and cooperation with other organizations in promoting forestry. It is estimated that 95 of every 100 persons in Georgia have at sometime in the past two years been reached with an effective forestry message.

The Commission has initiated an ambitious and intensive program of research in cooperation with the Georgia Forest Research Council, the Georgia School of Fores-

WORKERS IN MANUFACTURING INDUSTRIES GEORGIA 1951

FOREST
20%

ALL OTHERS
80%



VALUE OF PAYROLLS IN MANUFACTURING INDUSTRIES GEORGIA 1951

FOREST
18%

ALL OTHERS
82%



try, the U. S. Forest Service, and private industry. Already started are studies of the following: forest genetics, hardwood control, prevention and control of insects and disease damage, and the establishment of pine seed orchards.

The Georgia Forest Research Council, founded during the past year, has assumed leadership in forestry research in the state. The prime immediate need in the continuing leadership of this group is that of an annual appropriation to insure the continuance and expansion of the advancement already achieved. The rich dividends which can be realized through this coordinated, progressive research program of the Council render it essential that adequate continual financing be assured.

A new research center has been established at the site of the Commission's Macon Warehouse Office to provide headquarters for Hitchiti Research center and for personnel on the Research Council. Altogether, more than \$100,000 is being expended yearly in Georgia on research projects in which the Commission is cooperating.

One family out of every four employed in industry in Georgia earns a living manufacturing products made from the forest. Nearly every farm family finds employment in the wood industry or a market for trees grown on the farm.

Today, of all workers in manufacturing in Georgia, 23% are engaged in forest industries and earn about one-fifth of all wages paid industry workers. Each of these forest industries in turn provides markets for farm produce and for other merchandise, and contributes to the financial support of many businesses and services.

Woodlands cover sixty-six percent—two out of every three acres—of the total land area of the state.

Out of the states' total land area—of 37 million acres, 24 million acres are in forests.

Non-forest land in the state totals 13 million acres, of which 11 million acres are in cropland and pasture. Nearly 2 million acres are in miscellaneous uses or in idle farm and.

Georgia ranks first in the nation in privately-owned forest acreage. Ninety-two percent of the commercial forest land, including practically all of the fast growing coastal plains area and the Piedmont, are in private ownership. Farmers are the largest single group of owners with 66% of the

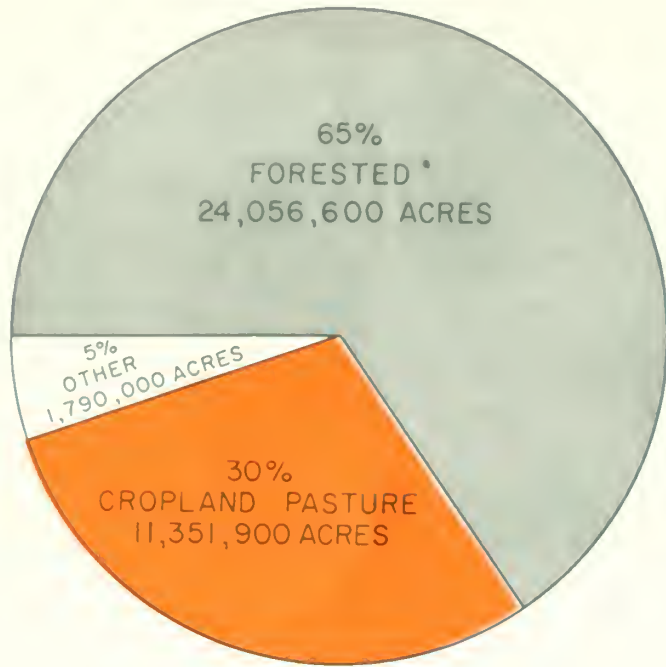
total forest area. Other private owners—including forest industries, professional men, wage earners, housewives and businessmen—own 27%. Public agencies own 7%, with 2.7% in National forests and in land utilized in the public interest for watershed protection, timber growing, public recreation, wild life development and military use. Thus the forest lands are of immediate interest and concern to every segment of the population of Georgia.

The average farm in Georgia has 69 acres of woodland. A substantial portion of every county is in woodlands, ranging as high as 96%. Growth in Georgia's forests are excellent and every community of Georgia has forest lands which contribute to our potential for employment, industry and wealth.

More than 2½ million acres were added to the forest area of Georgia in the 18-year period from 1935 to 1953. These acres were formerly in cultivation and have reverted to tree growth. Every section of the state has land that has reverted from cropland or pasture to woods. The greatest change occurred in the Piedmont and the Northeast sections of Georgia where lands were increased by 2 million acres. During the past two centuries, most of the land which is suitable to cultivation or pasture has been cleared and farmed at one time or another. Today 24 million acres are primarily suited to timber growing as their most profitable crop. However, retirement from agriculture has not assured the start of a tree crop. 1.4 million acres of forest land have not restocked and are not restocking. An additional 2 million acres of farm lands are idle and some of these acres can also be classed with the idle forest land acreage. Further, a substantial part of the 7.5 million acres of cull hardwood land in the state must be planted to produce a marketable crop.

County by county, the situation is even more striking. Some counties are growing annually as much as 100% more pine timber volume than is being cut. In other counties, cutting exceeds growth by more than 100%. While all counties could grow substantially more timber on lands now available, it is mandatory that counties in which serious depletion is underway take immediate and positive steps to reverse the trend and grow more timber,

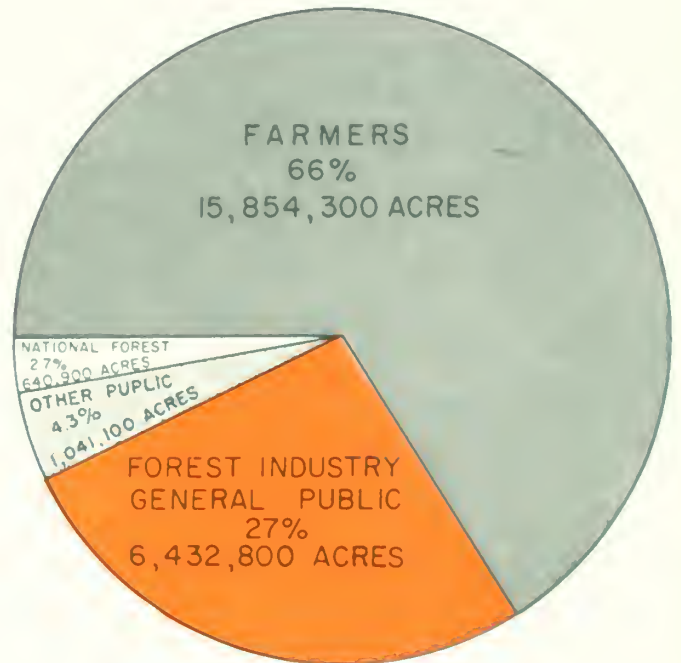
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GEORGIA LAND AREA

Woodlands cover sixty-six percent—two out of every three acres—of the total landarea of Georgia. Of the state's total land area of 37 million acres, 24 million acres are in forests.

Georgia ranks first in the nation in privately-owned forest acreage. Ninety-two percent of Georgia's forestland is privately owned by farmers, wage earners, forest industries, housewives and businessmen.



COMMERCIAL FOREST LAND OWNERSHIP

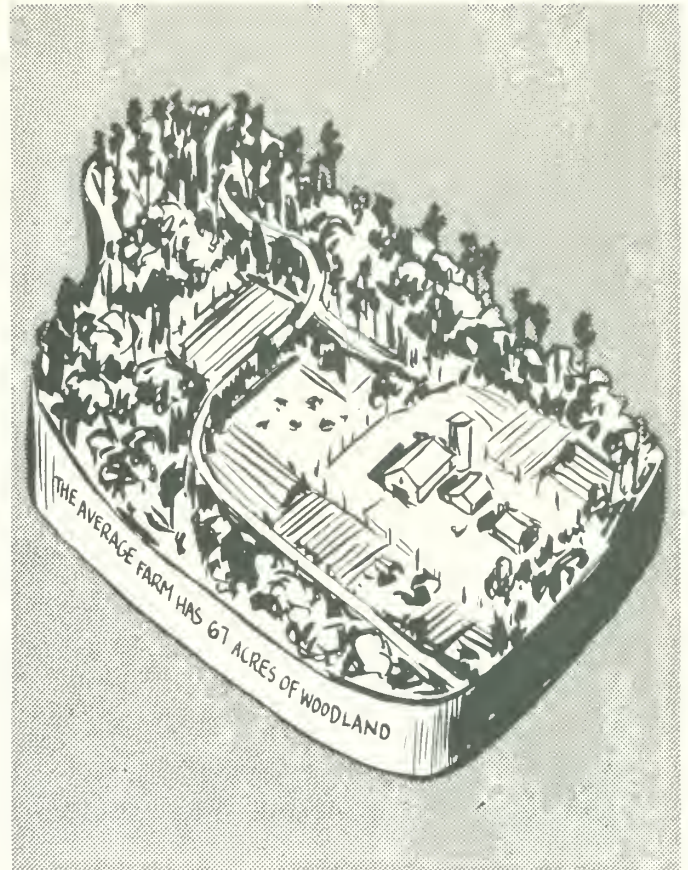
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In view of the tremendous contribution of 22 billion board feet of lumber and 19 million cords of pulpwood—plus other products such as poles and fence posts—made by forest lands in the past 18 years, it is not surprising that Georgia's saw timber volume in both pine and hardwood is declining. The state's total pine volume of merchantable trees, large and small, is not equaling the drain. The record for the period 1935 to 1953 shows pine saw timber down 15% with all pine 6" and larger down 2%.

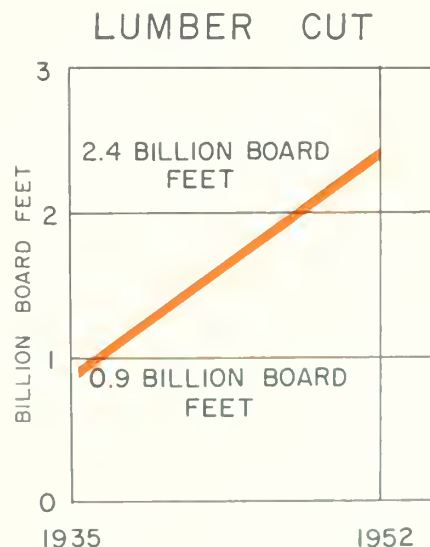
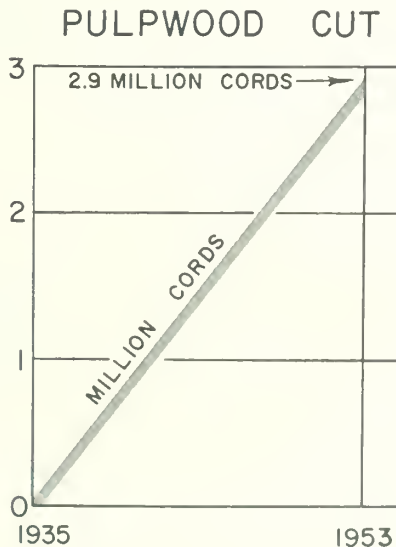
Hardwood saw timber volume declined 10% while the total commercial volume of hardwood 6" and larger on the stump showed a 1% increase in volume. These declines are a material improvement over the situation presented in 1935 when sawtimber showed a decline over a 10-year period of 20% and all commercial timber showed a decline of 10%. These state totals, while revealing a reduction, fail to show the progress taking place in some sections and the serious depletion in other sections. Southeast Georgia points the way to good forest management with a 25% increase in pine growing stock. Southwest Georgia increased pine growing stock by 5%. The rest of the state lost pine growing stock by substantial volumes: Piedmont, down 20%; Northeast Georgia, down 22%; Northwest Georgia, down 29%.

Meanwhile, the demand for forest products is increasing. Lumber and pulpwood cut are at an all time peak. New wood using industries making a variety of new products are locating in Georgia. The population of Georgia and the nation is increasing. Per capita consumption of wood products for paper is increasing rapidly from 230 pounds per person in 1935 to 300 pounds in 1950. Our mills are transforming wood into cellophane, rayon, plastics and even food.

Surveys of timber growth over the United States indicate that the nation as a whole is cutting much more wood than it is growing. Georgia's markets for wood include densely-populated, heavily over-cut North and Northeast portions of the United States. These sections cannot grow timber as rapidly as Georgia. There is every reason to believe that there will be a profitable market for all the wood that Georgia will grow.

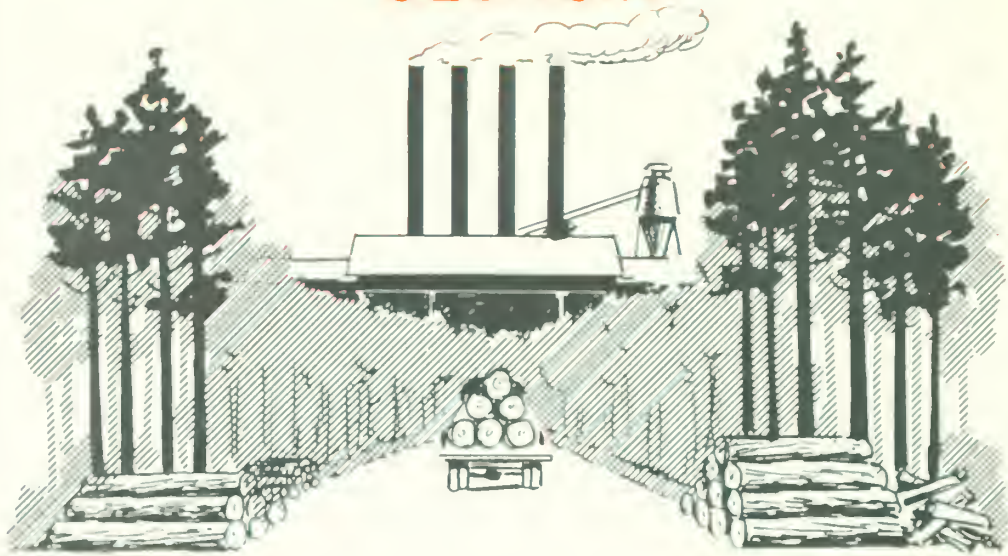


The average Georgia farm has 69 acres of woodlands. Under fire protection and sound management farm timber can be a high-value cash crop.



The demand for timber products is increasing. New forest industries are starting operations in Georgia, and existing industries are increasing production capacities.

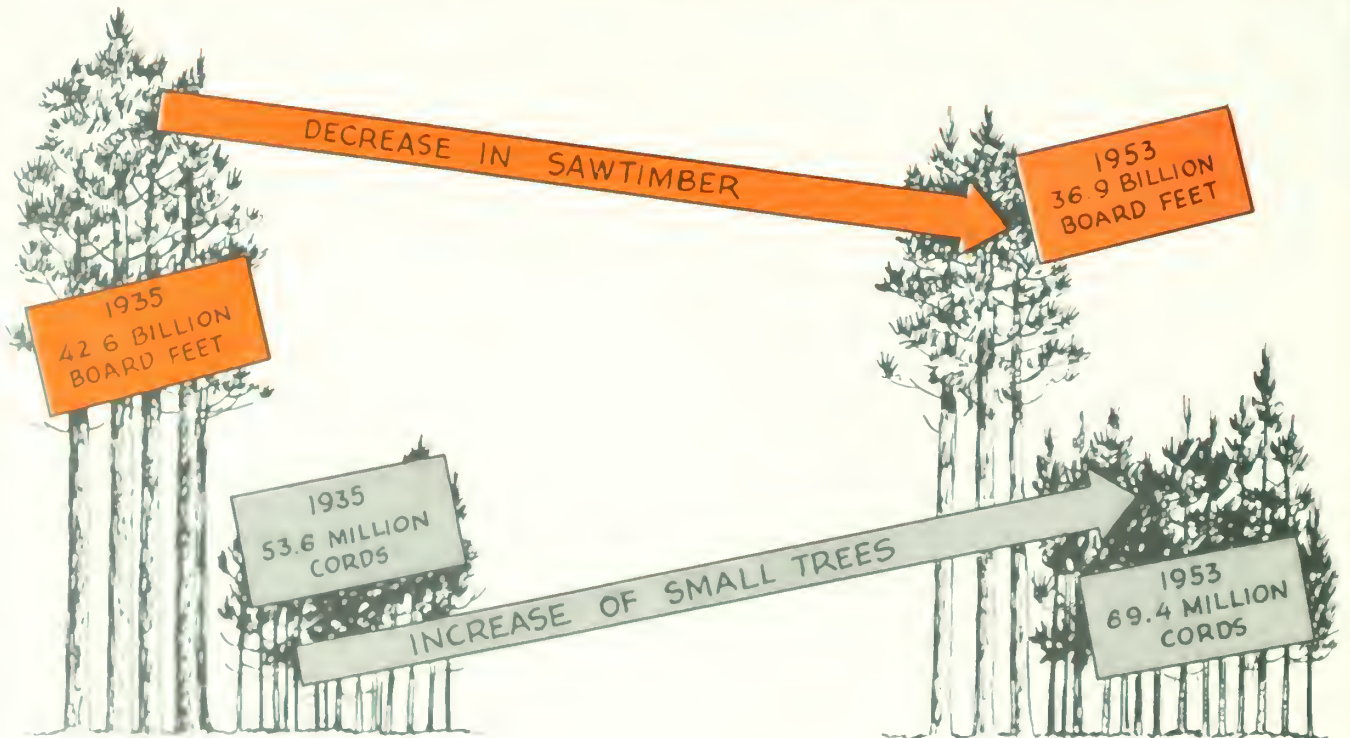
TIMBER SUPPLY SITUATION AT A GLANCE GEORGIA



GROWING
12,500,000 CORDS
OF TIMBER

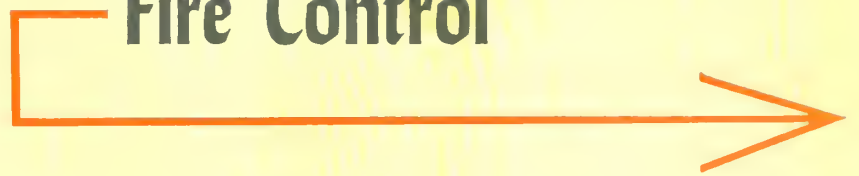
CAN GROW
25,000,000 CORDS
OF TIMBER

COMPARISON OF COMMERCIAL VOLUMES





Fire Control



Fire Control

Georgia now leads the entire nation in the amount of private and state forestland under organized fire protection, and the forest arrayed against wildfires has reached record proportions in numbers, suitability to the requirements of the fire fighting job, and efficiency.

As the nation's pace setter in forest fire control, the state now has 20,251,862 acres under organized protection by the Forestry Commission and 137 counties are operating County Forestry Units—more than ever before in history. These 20,251,862 protected acres constitute 90 percent of the total privately-owned and state-owned forest land in Georgia.

Eighteen new County Forestry Units—aggregating 813,524 additional protected acres—were established during the past two years and placed Georgia in the forefront of all states in this phase of conservation. The state assumed this national leadership on July 1, 1953, and even since that date the protected acreage has been substantially increased.

In July, 1954, headquarters of the Fire Control Division of the Commission was transferred to Macon. This move was made to centralize the direction of the fire control activities and more closely coordinate activities of the Commission's shop and warehouse to better serve the needs of the districts and field personnel. Headquarters of the Law Enforcement Chief was simultaneously moved to Macon and the Fire Control Staff was expanded with the appointment of an additional Assistant Chief of Fire Control. The creation of this position was necessitated to meet

the increasing administrative and supervisory requirements in the fire control branch.

Effective fire prevention continues as the paramount need in fire protection in Georgia. Fire incidence must be reduced if the acreage burned yearly is to be substantially lowered and the per-acre expenditures for fire protection are to be maintained at feasible levels. High suppression efficiency of the individual County Forestry Units is shown in the constant decreases in acreages burned and sizes of the fires.

Special advancements were made during the past two years in preparations for, and perfecting methods of handling, major fire emergencies. These improved methods and preparations resulted from actual experience gained during the major fire emergencies encountered in North Georgia during each of the last two years.

Carefully compiled and highly detailed fire prevention plans have been formulated for the various types of fire outbreaks and major fire emergencies which may develop on the county, district, regional or state level. These plans make possible the rapid concentration of men, equipment and supplies in an area with a minimum of expense and effort and on a scale consistent with the proportions of the crisis.

A mobile fire headquarters has been constructed and placed in use as an operations base in combatting major fire outbreaks. Consisting of a 26 foot trailer, the mobile headquarters is fitted with two-way radio and its own power generator. The trailer serves a dual purpose as a mobile exhibit when not actively engaged in fire control operations.

Complete caches of materials and equipment that may be needed to meet the various levels of fire emergencies are now held in readiness at the Macon Warehouse for instant dispatch to the fire areas. These collections of equipment and materials are maintained inviolate to assure readiness when needed.

The use of airplanes in fire detection and law enforcement has been expanded in the past two years. The Commission now owns and operates two planes and an additional 16 are utilized on a contract basis during periods of high fire danger.

(Continued on page 23)

Wildfires—products of man's carelessness and irresponsibility—kill and injure mature timber, destroy valuable seedlings, and increase likelihood of disease and insect attacks.



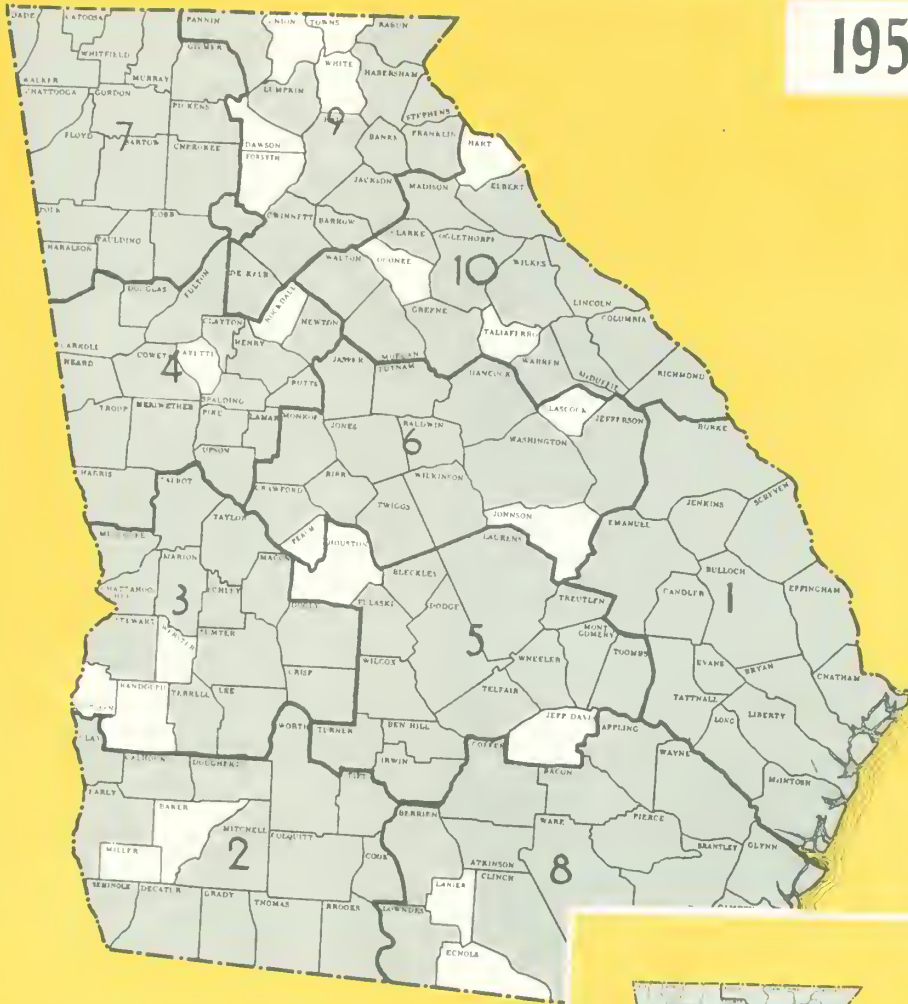
1944



GEORGIA'S COUNTY FORESTRY PROGRAMS

- County Forestry Unit
- No County Forestry Unit

1954



195?



RECORD PROGRESS IN FOREST FIRE CONTROL

Georgia leads the nation in protected acreage of private and state forestland—the result of a decade of progress. Twenty-two counties remain without organized forest protection—a challenge to concerted efforts to spread the cloak of protection throughout the state.

Georgia's Forest Fi

The situat

First Forestry District—Statesboro District

All counties of the Statesboro district have County Forestry Units. The 14 counties comprise 2,408,351 forest acres. Counties are: Bryan, Bulloch, Burke, Candler, Chatham, Coastal TPC, Effingham, Emanuel, Evans, Jenkins, Liberty, Long, Screven and Tattnall.

Second Forestry District—Camilla District

Fourteen of the Camilla District's 16 counties are under the jurisdiction of County Forestry Units. Forest area in the 14 protected counties total 1,962,400 acres, while the entire district's forest area composes 2,158,900 acres.

Counties with forestry units are: Brooks, Calhoun, Clay, Colquitt, Cook, Decatur, Dougherty, Early, Grady, Mitchell, Seminole, Thomas, Tift and Worth.

Counties *not operating* forestry units: Baker and Miller.

Third Forestry District—Americus District

The Americus District's 17 counties have 1,862,700 forest acres. Thirteen counties, with a forest area of 1,545,200 acres, have organized Forestry Units.

Counties with Forestry Units are: Crisp, Harris, Macon, Muscogee, Schley, Taylor, Stewart, Sumter, Talbot, Terrell, Chattahoochee, Dooley, Lee and Marion.

Counties *not operating* Forestry Units: Quitman, Randolph and Webster.

Fourth Forestry District—Newnan District

This district, with 18 counties, has a total of 2,173,200 forest acres. Sixteen of these counties have Forestry Units and 2,064,800 forest acres.

Counties with Forestry Units are: Butts, Carroll, Coweta, Douglas, Fulton, Heard, Henry, Lamar, Meriwether, Newton, Pike, Spalding, Troup, Union, Clayton and Harris.

Counties *not operating* Forestry Units: Fayette and Rockdale.

Fifth Forestry District—Ocmulgee District

Fifteen counties and 1,983,700 forest acres are represented in the Ocmulgee District's total area. There are 1,690,900 forest acres in the counties with forestry units.

Counties with Forestry Units are: Ben Hill, Dodge, Irwin, Laurens, Montgomery, Telfair, Toombs, Thibault, Turner, Wheeler, Wilcox, Bleckley and Pulaski.

Counties *not operating* Forestry Units: Jeff



Protection Organization

by districts

Sixth Forestry District—Milledgeville District

Twelve of the Milledgeville District's 15 counties operate County Forestry Units. Total forest area of this district is 2,290,300 acres, and the protected area totals 2,104,500 acres.

Counties with Forestry Units are: Baldwin, Bibb, Crawford, Jasper, Jefferson, Jones, Monroe, Twiggs, Wilkinson, Putnam, Washington and Hancock.

Counties *not operating* Forestry Units: Glascock, Johnson, and Peach.

Seventh Forestry District—Rome District

All of the Rome District's 16 counties have County Forestry Units. The district's forest area totals 2,138,600 acres.

The Counties are: Bartow, Catoosa, Chattooga, Cherokee, Cobb, Dade, Floyd, Gilmer, Gordon, Haralson, Murray, Paulding, Pickens, Polk, Walker and Whitfield.

Eighth Forestry District—Waycross District

The Waycross District, with more total forest area and more forest area under protection by County Forestry Units than any other district, has 14 protected counties. The 16 Counties comprising the entire district have a forest area of 4,135,500 acres. A total of 3,649,011 acres are in the 14 protected counties.

Counties with Forestry Units are Appling, Bacon, Berrien, Brantley, Camden, C.F.L.U.A., Charlton, Coffee-Atkinson, Consolidated TPO, Glynn, Lowndes, Pierce, Ware and Wayne.

Counties *not operating* Forestry Units: Echola and Lanier.

Ninth Forestry District—Gainesville District

A total of 1,526,900 forest acres are represented in the 17 counties in the Gainesville District. The 12 counties with organized Forestry Units have a forest area of 1,136,700 acres.

Counties with Forestry Units are: Barrow, DeKalb, Fannin, Hall, Habersham, Jackson, Stephens, Rabun, Banks, Franklin, Gwinnett and Lumpkin.

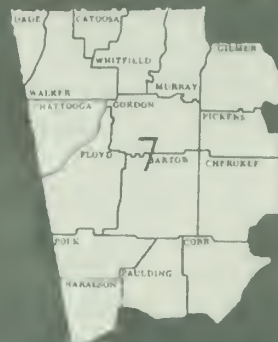
Counties *not operating* Forestry Units: Dawson, Forsyth, Towns, Union and White.

Tenth Forestry District—Washington District

Sixteen counties aggregating 1,775,400 forest acres are in the Washington District. Forest area in the 13 counties under surveillance of County Forestry Units totals 1,551,400 acres.

Counties with Forestry Units are: Columbia, Elbert, Greene, Madison, Morgan, McDuffie, Richmond, Walton, Wilkes, Clarke, Lincoln, Oglethorpe and Warren.

Counties *not operating* Forestry Units: Hart, Oconee and Taliaferro.





Heavy two-disc plows cut wide firebreaks through dense undergrowth in Coastal Plain.



Light tractor-and-plow units construct effective firebreaks in a minimum of time in Piedmont and North Georgia.



Pickup trucks serve for fire patrol, suppression, public relations and administrative activities.

SENTINELS OF THE FOREST

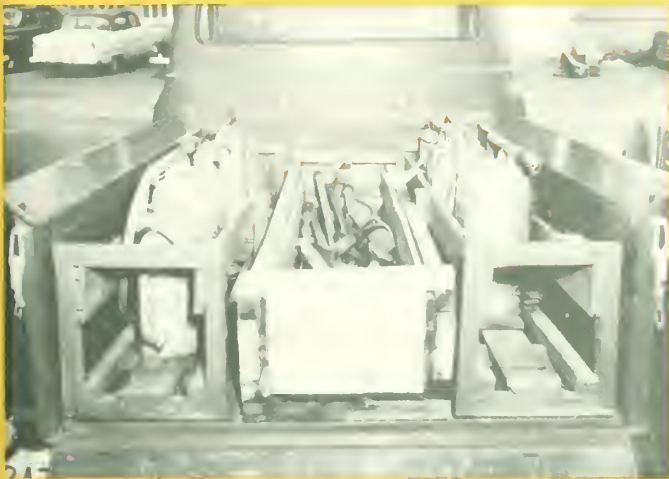
316 forest fire lookout towers are maintained and manned by the Commission.



Bulldozer is used in fire suppression, road building, and construction of nurseries, tower sites and other installations.



Airplanes are invaluable in fire detection, suppression and law enforcement. The air arm of the Commission now includes 18 planes—two owned and 16 operated on a contract basis.



Handtools—fire rakes, fops, backpumps—are effective in fire suppression where mechanical equipment cannot be used.



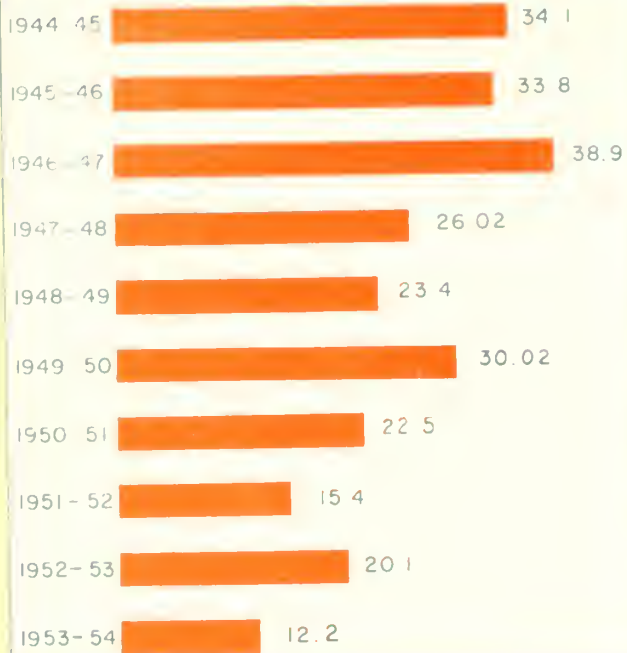
Power wagons with special low traction gears, and equipped with power pumps, water tanks, and handtools, are used in direct attacks on fires.



Fire Suppression Equipment

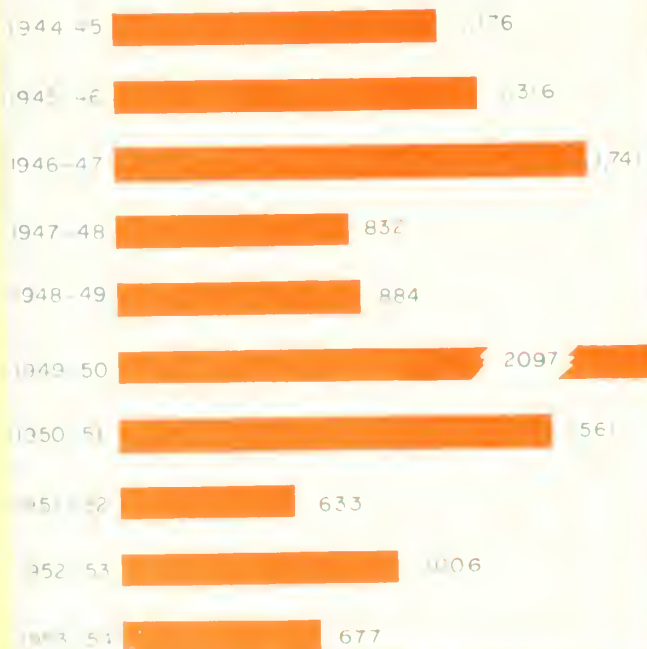
The demanding requirements of forest fire fighting in different sections of Georgia require a wide range of specially adapted vehicles and mobile equipment. Varying conditions of topography, ground cover, forest type and fire behavior dictate that each piece of suppression equipment be designed and outfitted for the particular area of service.

AVERAGE SIZE OF FIRE
(ACRES)



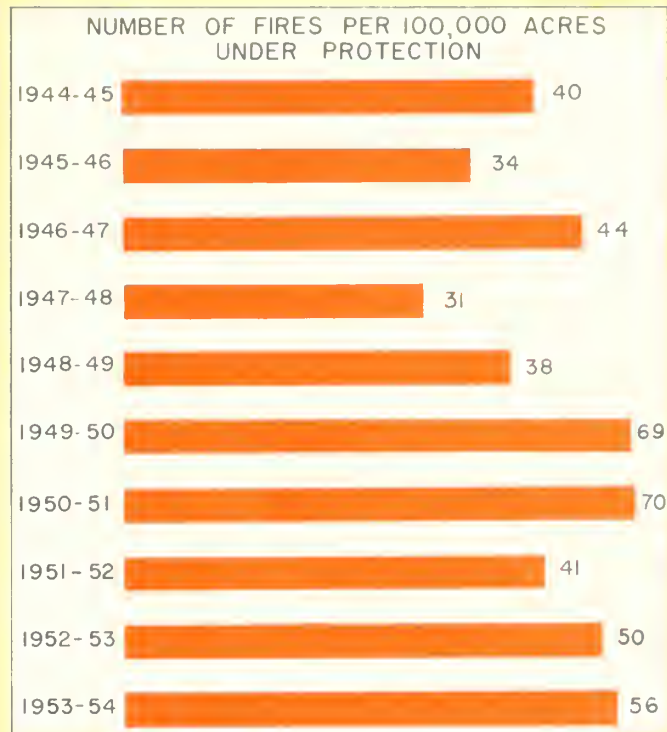
Increasing efficiency of fire fighting crews is shown by constant decrease in the average size of fires. Fires are being spotted, located and suppressed in a minimum of time.

ACRES BURNED PER 100,000 ACRES
UNDER PROTECTION



Acres burned yearly per each 100,000 acres under protection continues to decrease. Fire losses in unprotected counties are estimated to be from 10 to 25 times as great as in protected counties.

Effective fire prevention is the principal need of fire protection in Georgia today. Increased public use of the woods and record drouths have in the last three years greatly intensified the prevention problem.



(Continued from page 16)

Personnel readiness is a vital component in fire suppression efficiency, and becomes increasingly important as the size and scope of the Commission's activities increase. The Commission has intensified its training program to insure that fire control personnel will be proficient in fire control activities. A statewide Rangers Training School for all newly-employed County Rangers is held each year in advance of the fire season and individual district training sessions supplement this school.

Rapid, versatile, dependable communications become an increasingly important element of forest protection. All fire fighting vehicles, all district and county headquarters, all aircraft and nearly all lookout towers, are equipped with two-way radios.

Weather conditions provide the key to the daily and hourly appraisal of forest fire danger. The Commission has increased its fire danger weather stations in the state until there are now ninety-eight stations in forested areas. Constant studies are made to devise better means of measuring fire danger. The fire control branch is constantly studying also new methods of improving equipment and methods of reducing fire occurrence, and means of lowering the costs of fire suppression.

(Continued on page 26)

Fire Loss Reduces Forest Productivity.





Stores are maintained in readiness for forest fire emergencies.



A mobile fire control headquarters is completely outfitted for use during fire emergencies.



Vehicles are equipped for field service at the Commission's Mocon Shop.

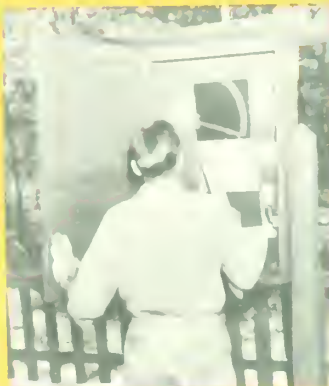
Vehicle patrols and towers in detection in periods of high fire danger.



Fire control plans are set up to meet crises on county, district or state levels.



The Commission's statewide Ranger training schools are a major phase of personnel training.



District and county instruction sessions supplement statewide training schools.



Fire danger weather stations provide constant information on fire danger.



Emergency Preparations

Emergency Preparations. Modern day forest fire control requires complete, streamlined, proven plans to combat major fire emergencies—periods of high fire occurrence coupled with extreme difficulty in fire suppression. Men, material, and knowhow must be rapidly mobilized on the fire line.

Intense and extended drouth conditions have in the past three years brought record fire threats to the woodlands of Georgia. These major fire emergencies have been successfully combatted by direct action in concentrating manpower and equipment. Detailed, carefully derived plans have been formulated to anticipate, evaluate and overcome major fire outbreaks on the county, district or state level.

Georgia now stands better prepared than ever in history to meet future fire emergencies. Equipment and supplies have been assembled and are in readiness, personnel assignments determined, and procedures of mobilization established.

Equipment Readiness And Pre-Suppression

Equipment Readiness and Pre-suppression. Men, machinery and minds molded together in readiness—form the efficient fire control team. Equipment readiness and forewarning of danger conditions are vital. Fire fighting vehicles and equipment are equipped for field use and maintained in complete readiness at the Commission's Georgia Forestry Center at Macon. Fire danger weather stations located throughout the state provide continuous data on present and approaching fire danger. Patrols are sometimes used as a supplement to towers for fire detection in periods of high fire danger.

Personnel Training

Personnel Training. Constant field training and schooling of personnel is a vital element of effective fire control. Fire fighting teams must be trained to use new equipment, advanced techniques, and improved procedures.

Continual learning, instruction and practice point the way to increased efficiency in fire protection with reduced fire occurrence and reduced acreage burned.

The Commission conducts extensive training operations on the county, district and state level.

(Continued from page 23)

Tractor and plow suppression units designated for use as emergency equipment have been placed in nine districts. This equipment serves to strengthen the fire suppression units in the districts, and is available for use in areas where individual county equipment and personnel are insufficient to combat large fires.

The demanding requirements upon vehicles and equipment used in fire fighting make it essential that a thorough program of preventive maintenance be carried out, if top level readiness is to be assured. During the past two years the Commission has broadened and intensified its equipment maintenance activities in order to keep its fire suppression vehicles constantly ready to answer fire calls.

The Commission's fire control personnel cooperate closely in Georgia's Civil Defense Program. County Units have participated in drills, with radios used to relay messages, towers used for Ground Observation posts, and equipment moved to bomb-strike areas in simulated operations.

During the period of this report, the Commission joined with other states of the region in forming the Southeastern Forest Fire Compact. The legislature in 1954 passed a bill enabling the Georgia Forestry Commission to enter into the agreement with nine other southeastern states to give mutual aid in case of disaster scale fires. The compact was approved by Congress during the last session, and represents a notable advance in regional cooperation in fire protection.

Without an efficient communications system, any forest fire suppression operation is seriously hampered. The difference between restricting forest fires to a small burn and battling blazes which spread for hundreds of acres depends to a large extent on the speed with which the fire is detected and reported to a dispatching unit.

It is with this realization in mind that the Georgia Forestry Commission operates and maintains in peak condition a total of 880 two-way radios, most of which are of the highly effective FM type. Installed in lookout towers, fire suppression and fire patrol vehicles, planes, and dispatching headquarters, these radios serve as an instantaneous link between the corps of Commission workers who spot fires and those who man the firelines.

Maintaining 880 radios is the major task of the Commission's Communication Engineer and his staff of 11 specially trained radio technicians. Each of these technicians covers a complete forestry district and provides round-the-clock servicing for the radio sets under his supervision.

Telephones still are used in many areas, and Commission personnel maintain 837 miles of telephone lines.



Two-way radio in fire suppression vehicles maintain continuous contact with towers and patrol planes.




Air-to-ground communications by two-way radio in patrol planes. Fires quickly reported, low enforcement aided.


Fire locations and descriptions relayed instantly from towers, crews guided to fire scene.






Exhaustive efforts are used to determine and apprehend violators of forest laws. 



All fires are carefully investigated to determine causes and responsible persons. 

Willful or negligent violators of forest laws are vigorously prosecuted. The judiciary of the state gives increasingly strong support to the enforcement of forest laws. 



Playing an all important role in fire detection and suppression is the vast network of 316 forest fire lookout towers manned by the Georgia Forestry Commission. Where once a large percentage of towers manned by the state forestry organizations were of the old-style wooden type, few wooden towers exist now. The towers—eyes of the forest—are of sturdy, all steel construction, solidly anchored by concrete foundations.

The past two years marked inauguration of research on a TV "camera eye" which, mounted atop a forest fire lookout tower, would enable a dispatcher on the ground to scan the surrounding horizon for tell-tale signs of smoke. Those working on the "camera eye" foresee the day when the dispatcher, looking at several television screens grouped about him, can have a view of several areas from the several towers atop which cameras have been mounted.

Georgia's citizens have, to a highly gratifying extent, shown the greatest cooperation in the Commission's fire prevention program. Services of a law enforcement staff of 10 district investigators under the supervision of a Chief Investigator are necessitated, however, by the small minority for whom Georgia's forest fire statutes hold no significance. The most modern criminal investigation and detection methods are utilized by this force, whose overall task often is made even more difficult by the fact that much of the evidence for which they search is destroyed in the flames of forest fires. The law enforcement branch trains and uses its own pack of thoroughbred bloodhounds.

While not engaged in actual investigative work, the Commission's law enforcement officers provide valuable aid in fire control activities and educational projects in their districts.

Detecting and suppressing forest fires over a 137-county area calls for an extensive and well-maintained fleet of vehicles. One of the chief weapons in the offensive against forest fires is the tractor, equipped with suppression plow. One hundred and ninety three of these tractor-plow units now are in use by Commission forces. These range from the small crawler tractor, in use in the upper Coastal Plain, Piedmont and mountain sections, to the heavier tractor equipped with 28-inch disc plow used in the more southerly areas below the Piedmont.

A special advancement during the past two years has been the increase of the force of emergency fire equipment which is held in readiness at the Macon Forestry Center and at the District offices. This emergency equipment consists of tractor-and-plow suppression units and is used only to supplement county unit equipment when fire conditions are so intense that local county forces and equipment are unable to cope with the situation.

In use by the Commission are 415 trucks, ranging from light pickup trucks used in patrolling activities to the heavier power wagons on which large quantities of water may be taken directly into the woods. Fifty-eight transport trailers are used to carry suppression equipment to the scene of the fire, and 87 jeeps equipped with plows also are used, particularly in the Piedmont area.

Providing a liason between the Commission and the individual County Forestry Units are the County Forestry Boards, which aid the Commission in carrying out the forestry programs in the counties by serving in an advisory capacity. Each board consists of five prominent local citizens and landowners, with members appointed by the Director of the Commission.

FIRE CONTROL

ACCOMPLISHMENTS

1. Georgia assumed national leadership in acreage of private and state forestland under protection.
2. Nineteen new county forestry units started during last two years.
3. Strength and efficiency of existing forestry units increased.
4. Emergency fire control plans formulated for major fire crises.
5. Acreage burned percentage continually decreased.
6. Average sizes of fires reduced.
7. Participation in forming Southeastern Forest Fire Compact.
8. State level training sessions conducted yearly.
9. Operations centralized with establishment of new Macon fire control headquarters.
10. Air patrol operations expanded to improve fire detection, suppression and law enforcement.
11. Intensification of law enforcement. Cultivating increased support of the state's judiciary in enforcement.
12. Reclassification of fire causes to give more accurate information and provide better guidance in prevention efforts.

JOB AHEAD

1. Establish forestry units in the 22 counties not under organized protection.
2. Maintain existing fire suppression forces at full strength.
3. Greatly intensify fire prevention efforts.
4. Continue striving to reduce fire loss to 1/2 of 1 percent or less.
5. Expand and improve personnel training — on the state, district and county levels.
6. Continue and increase law enforcement activities.
7. Research and field studies to improve techniques of fire control.
8. Increase proficiency of fire control radio communications.

FOREST FIRE REPORT SUMMARY — July 1, 1953 through June 30, 1954

Districts	Total Fires	Acres Burned	Average Size	Percent Burned	Total Acreage Protected
1	1,982	18,428.20	9.29	.765	2,408,351
2	1,261	21,982.55	17.43	1.120	1,962,400
3	502	6,799.51	13.54	.440	1,545,200
4	1,338	20,700.60	30.94	1.003	2,064,800
5	1,022	13,154.65	12.87	.847	1,553,700
6	555	4,124.50	7.43	.258	1,601,500
7	1,622	26,204.05	16.16	1.225	2,138,600
8	1,597	13,496.50	8.45	.370	3,649,011
9	495	3,050.68	6.17	.292	1,044,700
10	459	4,653.12	10.14	.300	1,551,400
	10,833	132,594.36	12.24	.679	19,519,662

EQUIPMENT

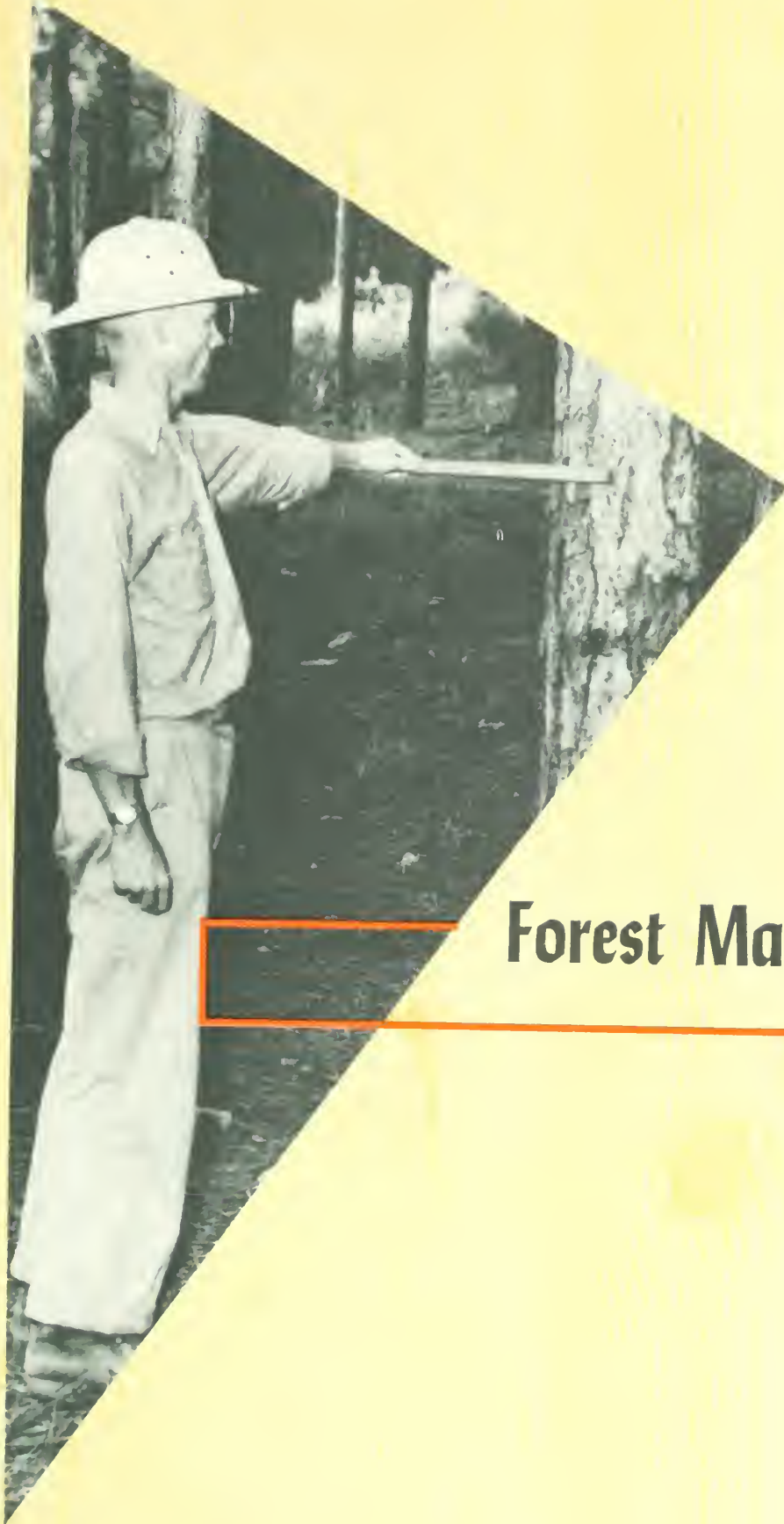
	1953	1954
Trucks	359	411
Tractors	163	189
Suppression Plows	164	194
Towers	315	322
Telephone Lines (Miles)	888	837
Radios (Fixed and Mobile)	762	832
Weather Stations	89	93
Pre-Suppression Maintenance Plows	29	29
Transport Trailers	52	58
Jeeps with Plows	118	87

FIRE CONTROL PERFORMANCE CHART

Item	Fiscal 1953	Fiscal 1954
Cost	\$2,620,579	\$2,678,573
Organized Units	119	132
Area Protected	19,208,938	19,519,662
Average Size of Fire	20	12
Number of Fires	9,691	10,833

TABLE SHOWING NUMBER OF FIRES BY VARIOUS CAUSES ON PROTECTED LANDS

CAUSES	FISCAL 1953		FISCAL 1954	
	No. Fires	Acres Burned	No. Fires	Acres Burned
Lightning	211	2,565.97	203	1,569.24
Railroad	237	1,888.43	217	1,767.40
Compers	103	1,924.71	115	1,932.00
Smokers	1,193	12,241.11	1,468	11,921.54
Debris Burning	2,598	29,310.36	3,646	36,305.27
Incendiary	3,251	76,511.84	3,330	47,503.81
Lumbering	429	14,581.59	325	3,173.72
Pulpwood Operations	254	3,449.83	125	1,075.15
Hunters	770	33,832.67	919	13,508.80
Miscellaneous	601	12,147.86	485	13,837.43
Unknown	44	4,215.20		
	9,691	192,669.57	10,833	132,594.36



Forest Management



Forest Management

Sound forest management — incorporating protection, good cutting practices, and wise utilization — is the major need of forestry in Georgia today. Especially is this need intensified on the small land holdings where the core of the forest management problem in the state exists. The average forest acre in Georgia is only one-third stocked, and is growing wood at only one-half of capacity. Fire control and reforestation can fully stock these acres, and good cutting and harvesting practices are necessary to increase the production to the maximum. This doubled production and increase in forest acres is imperative if the present demands and greatly multiplied future requirements for forest products in Georgia are to be fulfilled.

Only a beginning has as yet been made toward bringing adequate management to the bulk of the state's forest acres. The major portion of the job lies ahead — both in extent of coverage and in the intensification of the management practices.

The job ahead is essentially one of maintaining a balance between the amount of timber being cut and the amount being grown. At present, the total growth in the state as a whole nearly equals the total drain. However, in some areas of the state, the drain so far exceeds the growth that a merchantable timber famine is not outside the realm of reality. This is particularly true of North, North Central and Central Georgia where pine sawtimber volume decreased 45 percent, 50 percent and 38 percent, respectively between 1935 and 1953. Even in those areas where growth equals or slightly exceeds the drain any increased demands could easily upset this balance.

New wood using industries in the state would mean more employment and a larger payroll for Georgians but as much as this is desired, any increased demand for wood from our forests would require better forest practices to maintain a dependable supply of timber. This is possible and can be attained. Our woodlands are producing at only about half of capacity.

Due to the effectiveness of the state fire control program, fire no longer poses the problem that it once did; in fact, many woodland owners are now looking ahead and are requesting services in addition to fire protection to develop their forests to maximum production.

Due to the spectacular nature of fire, destruction from this cause is easily recognized and understood. However, losses from poor management practices — overstocking, stagnated stands, unproductive cull hardwood areas, disease and insect infestations — far exceed fire losses. The establishment of better forestry practices to offset these losses is the prime forestry problem in the state. The most urgently needed practices are those which will prevent the invasion of valuable pine land by inferior hardwoods. Since 1933, in spite of an increase of 2.7 million acres of forestland, our most valuable type, pine, has been reduced 800,000 acres due to poor cutting practices which did not insure regeneration of the tree crop. Much of this hardwood conversion could have been prevented by such methods as selective harvesting or proper cutting of the pine at the right time after a good seed fall, appropriate use of chemicals, timely prescribed burning, and or planting

Not only are low grade hardwood trees taking up more

and more of the available growing space, but the growing space occupied by cull trees is increasing at a rapid rate. Since 1933, the volume in cull trees, principally hardwood, has more than doubled. At present, one-third of all live trees one inch and larger are culls. They occupy 31% of the available growing space, and are taking the place of enough sound trees to stock 7.5 million acres or about 1/3 of the state's entire forest acreage. Although this condition exists over the entire state, it is particularly prevalent in the Central and Northern parts, where the pine sawtimber volume dropped nearly 44% during the past 18 years.

The most encouraging trend of our forest resources is a result of the effective fire control program operating in the state. Dividends from the "investment" of state funds in this program can now be seen in the form of literally billions of young trees. Better forest management practices are essential in order to bring these trees through to maturity and make a reality of the potential value of this surge of young growth.

The solution to our timber supply problem is not to curtail the harvesting of timber, but to increase the productive capacity of our forests through good management practices, and thus to produce enough timber for all of our present industries and any which desire to operate in the state in the future. This will not only mean good forestry in the state, but in a larger degree, will mean prosperity.

The Commission's policy governing forest management assistance to landowners is designed to provide services to a maximum number of owners of small woodlands—the ownerships which comprise 70 percent of the states forests. During the period of this report, the management policy was altered to provide a maximum of four days of forest management service to individual landowners, and to require a deposit or performance bond of 50c per thousand Scribner rule and/or 13c per cord on all timber which the landowner desires to be marked for cutting.

If the timber is cut within a six month period after marking, a Commission Forester, upon notification from the landowner that the timber has been cut, inspects the tract and if the cutting has been done according to the marking as determined by the forester, the deposit is refunded.

Two forest management training schools have been conducted during the last biennium. The first was held on the Hitchiti Experimental Forest in Jones County, and the second, a regional gathering attracting industrial, public and consultant foresters from throughout the South, was held at the Georgia School of Forestry.

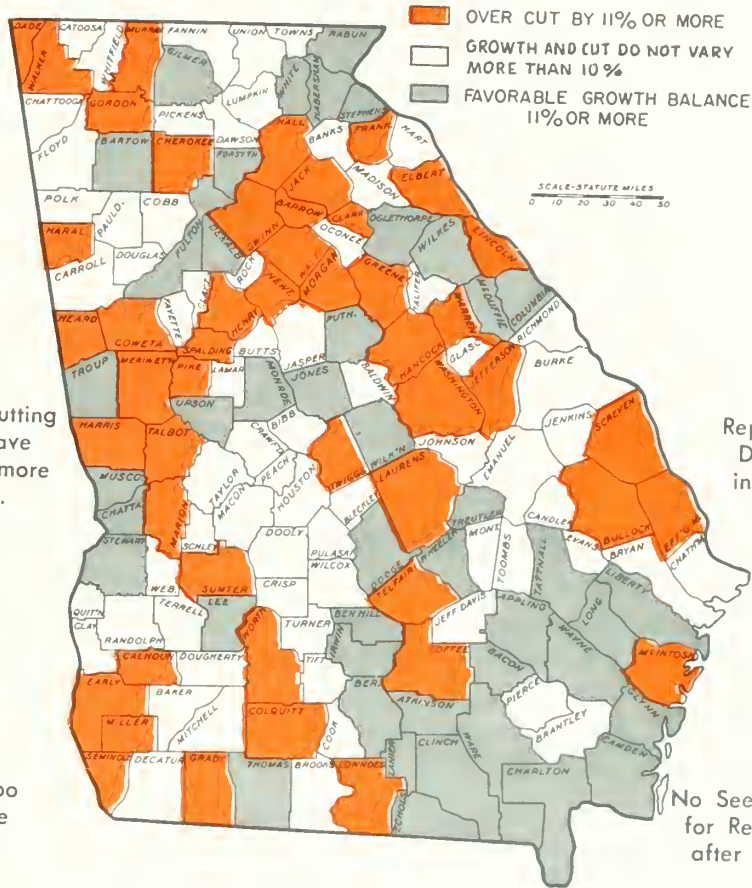
The two state forests at Waycross and Baxley are operated under the supervision of the Commission. The Waycross State Forest, covering 38,000 acres in Ware and Brantley Counties, has been placed under a permanent management plan, and during the past year there have been sales of pulpwood, sawlogs and naval stores. The Baxley State Forest, comprising 1,000 acres in Appling County, is under lease to a private organization for naval stores operations and turpentine experiments.

During the last year, the Commission began an experiment in clearing scrub hardwood stands and planting with pines. A brush cutter was used to clear several areas in Southeast Georgia which were densely covered with worthless hardwoods. The clearing operations were followed by planting of different species and varying spacings.

Georgia's No. 1 Forestry Problem — Improper Cutting Practices

Indiscriminate clear cutting, destruction of reproduction in logging, failure to mark for selective cutting prior to harvesting, and the lack of provisions for a seed supply for natural reforestation or provision for planting—these and similar destructive practices constitute Georgia's prime forestry problem.

PINE TIMBER GROWN VERSUS PINE TIMBER CUT
1952 — GEORGIA



Selective cutting would have produced more income.

Reproduction Destroyed in Logging

Trees cut too small to be profitable.

No Seed Supply for Restocking after Cutting

Clearcutting leaves land unproductive

Scrub Hardwood Invasion Follows Overcutting



1

TOO MUCH LAND IS STOCKED WITH UNDESIRABLE HARDWOODS—One acre in three is in cull or undesirable hardwoods. Seven and one half million acres out of 24 million acres grow only cull hardwoods and will continue to grow such worthless trees unless the cull hardwoods are removed and pine and more valuable young hardwoods are established.

This 7½ million acres of cull hardwoods are scattered in small and large patches in every county in the state and once grew valuable trees. The market purchased only the good trees—straight, sound and of good species. The cutters left the poor trees—crooked, decayed, and unprofitable species. These cull trees, totaling 31 million cords, continue to grow, claiming more and more land, seeding up other areas. Efforts to try to utilize these cull trees resulted in 130,000 cords being processed at the pulpmills in 1953. This volume about equals current annual growth on cull trees. All lands under cull trees are necessarily protected from fire and are taxed, yet they contribute nothing to the benefit of the owner or the state.

2

FOREST AREAS NEED MORE TREES—Georgia's forest areas need one additional tree for each two trees we now have.

Two acres out of three on Georgia's forests are well stocked as determined by survey. One acre in six is medium stocked, one acre in six is poorly stocked, and one acre in 20 is not stocked.

Overall, Georgia's forests have about one half as many trees including the seedlings as are needed to make full use of the soil and water available. Too many fires in past years, overcutting, and failure to replant abandoned agricultural land are the principal causes of understocking. Insects, disease and storm have been contributing factors.

3

PROPORTION OF MERCHANTABLE TREES IS LOW—In many stands there are proportionately only a small number of large trees that will produce high-value lumber, poles or piling. Georgia has a record growth of young seedlings and saplings as a result of fire protection and extensive planting. This young growth promises much for the future, but our immediate problem is to gradually increase our numbers of merchantable trees to sustain our forest industries.

4

INSUFFICIENT LAND IN SAWLOG SIZED TREES—The survey reports about 8% of the total forest area in large-sized sawlog trees, and 18% of the area in small-sized sawlog trees. There is a large proportion of the area in pole-sized trees, 37% of the total. Seedlings and saplings occupy 30% of the land, and 7% is idle forest-type land. A better distribution to assure proper balance would be 25% large sawlog, 25% small sawlog, 25% poles, and 25% seedlings and saplings.

5

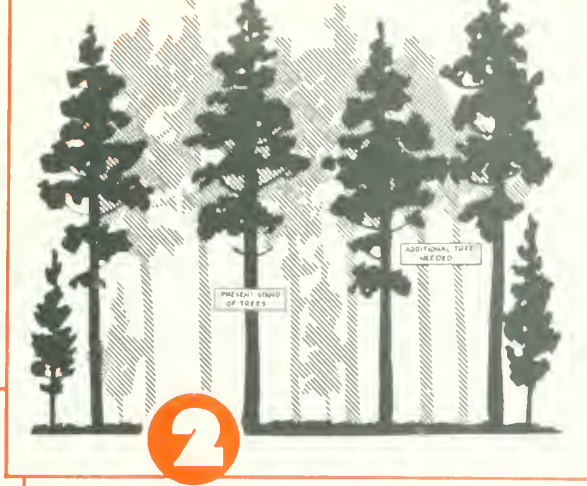
TOO MUCH OF THE TREE IS NOT UTILIZED—Though Georgia's forest industries lead the way in developing fuller use of harvested trees, a substantial portion of every tree cut is not used because many present practices, and much existing equipment, do not permit more complete utilization. Too much wood in limbs, slabs and saw dust fails to find profitable use. Further utilization of this waste would reduce the deficit in growth and provide for additional industries.



Forest Situation



1



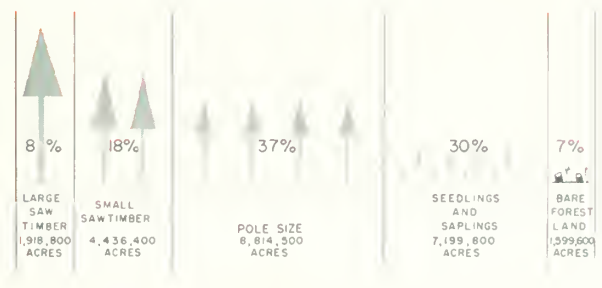
2

3



4

DISTRIBUTION OF FOREST AREA BY SIZE OF TREES IN STAND 1953



TIMBER PER-ACRE BY COUNTIES GEORGIA - 1953



5

POSSIBILITIES FOR SALVAGE



Residue from tree



On-the-ground Advice to Landowners



Marking for Selective Cutting



Management Plans Prepared



State Forests Managed for Production and Demonstration



Hardwood Control



Control of Insects and Diseases

Forest
Georgia





Utilization



Marketing Advice to Landowners



Demonstrations Teach Public



Management Schools



Timber Sale Information Provided

Management Activities Forestry Commission

Forest management services of the Georgia Forestry Commission are directed toward reaching the management problem at its core—bringing good management practices to the bulk of the state's small woodlands. To provide help to a maximum number of owners of small forestlands, and to processors and distributors of forest products, procedures are streamlined, services constantly broadened, personnel continually schooled, techniques improved, and research conducted.



Growth Studies

Research and Education Point the Way to Better Forest Management Activities



Research supplies the forest management information which is essential to bring sound forest management practices to the bulk of Georgia's woodlands. On-the-ground, long-term experimentation supplies the technical know-how and the means of practical adaptation and use. Returns from this clearcut area compared with selectively cut stand in background show better returns from selective harvesting.

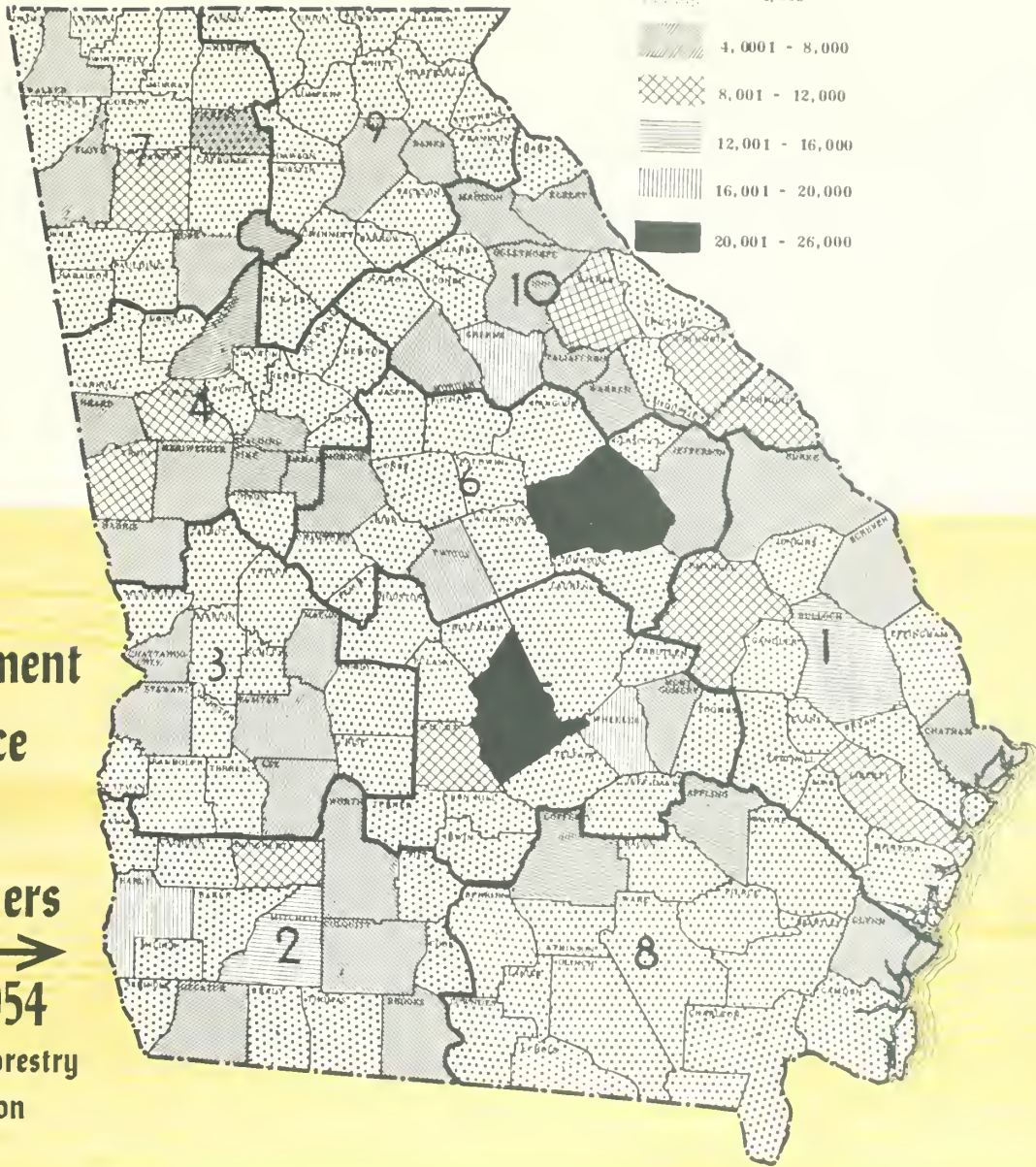
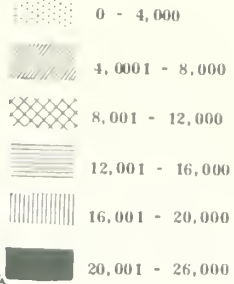


Public education—based on sound economics—is the avenue of approach to achieve landowners' understanding, acceptance and use of good forest management practices. Demonstrations, increased services to landowners, and multiplied use of all informational and teaching media are essential to reach and influence the state's forest owners.



The objective can be highly rewarding—to the landowner, to industry and to the public. With good forest management in Georgia—when trees are grown as successive crops—can come a doubled forest production, an expanded forest industry, and a greatly increased forest income.

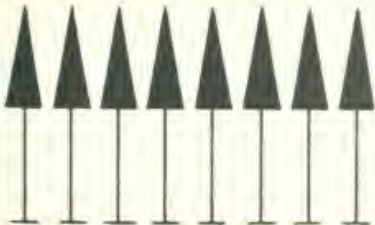
Acres in Management Service



Forest Management Assistance Rendered Landowners 1945-1954
 By Georgia Forestry Commission

The Job Done—1945-1954

8 Million Acres Under Management



The Job Ahead

16 Million Acres Not Under Management



THE STATUS OF FOREST MANAGEMENT IN GEORGIA

FOREST MANAGEMENT

ACCOMPLISHMENTS

1. 495,000 acres have been placed under improved forest management practices in the past two years.
2. 3300 forest management plans have been provided forest owners.
3. More than 700 sample contracts for sale of timber have been furnished timber owners.
4. 1060 timber sale information notices have been sent interested timber buyers since July, 1950.
5. Experiments have been established and are continuing in the clearing of scrub oak areas with brush cutters and planting with valuable species using various spacings.
6. Prescribed burning experiments are currently being conducted in an effort to control undesirable hardwoods.
7. In the last two years, 650 woodland management demonstrations have been conducted.
8. All state forests have been placed under intensive forest management.
9. Better management practices are being instituted on all state parks.
10. Initial steps have been made in the establishment of seed orchards. Quality trees have been selected as sources for grafting material.

JOB AHEAD

1. Establish better cutting practices on bulk of the state's woodlands. The annually decreasing sawtimber volume existing in the state can be stopped by proper cutting practices.
2. Better Utilization practice — Increased production can be realized by cutting lower stumps and using more of the tree, and by selling the timber for the product most valuable.
3. Establish better manufacturing practices.
4. To promote the use of forest management plans. More scientific and businesslike approach to secure higher yields.
5. Control of inferior trees. One of every three trees in Georgia 1" in diameter and larger is a cull. This can be corrected, using such measures as selective cutting, use of chemicals, timely prescribed burning, cutting after good seed falls.
6. Develop new markets, particularly for material which is now valueless and is wasted.
7. Increase the number and scope of activity of consultant foresters.
8. Supply more on-the-ground assistance — more Government, industrial, and consulting foresters are needed to fulfill present demands and increased future requests for service in forest management. Request for such service has exceeded the capacity of the Georgia Forestry Commission personnel for the past several years, and requests continue to increase.
9. Obtain broadened and improved tools of forest management. Expanded research is an acute need.
10. Establish more sound economic principles. Many forestry practices which are technically sound and effective, are economically impractical.
11. Expand the educational phase of forest management

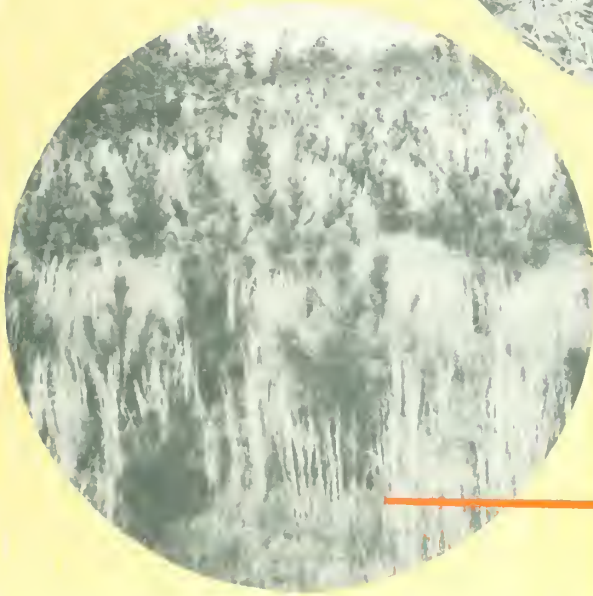
FOREST MANAGEMENT

ACTIVITY

1953-54*

Technical Forester spending 90% of time on private land management work.....	Number	1
Requests for Assistance, Operators.....	Number	515
Waadland Owners given assistance.....	Number	1,324
Number of Acres.....	Acres	293,161
Sawtimber marked for cutting.....	M.B.M.	35,189
Pulpwaad marked for cutting.....	Cards	32,061
Approximate area on which timber was marked.....	Acres	35,508
Waadlands on which improved cutting practises were followed:		
1. Commercial timber cut.....	Acres	21,678
2. Stand Improvement.....	Acres	2,095
3. Sawtimber saved from premature cutting.....	Acres	15,944
4. Aid to landowners in planting.....	Acres	2,372
Cases on which Consulting Foresters were recommended.....	Number	4
Requests pending as of November 1, 1954.....	Number	14

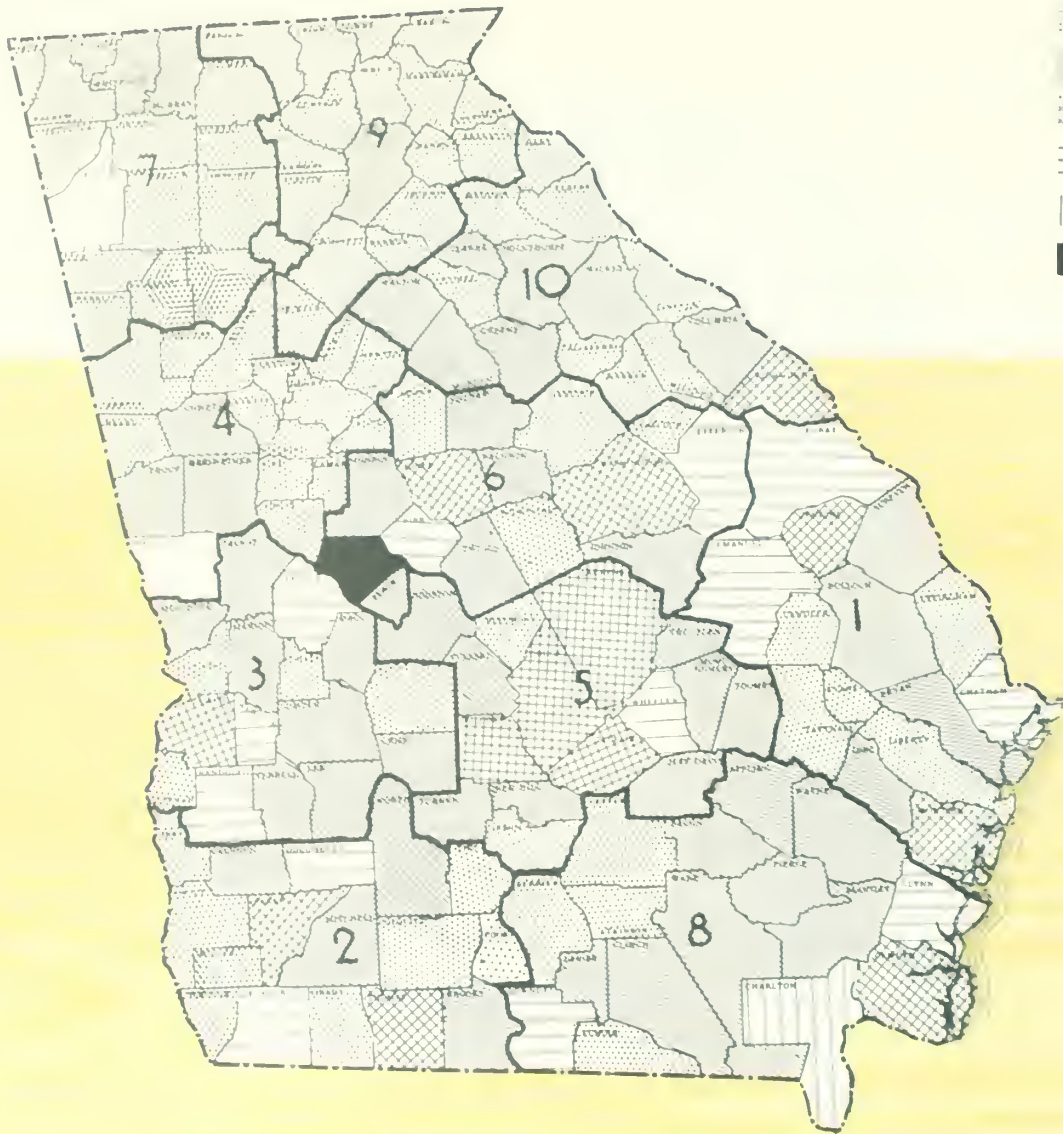
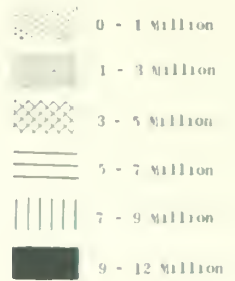
*Covers period from January 1, 1953-October, 1954; year incomplete at time of publication.



Reforestation



Seedlings Planted



**Forest
Tree Planting**
Seedlings Produced
By
Georgia Forestry
Commission Nurseries
(TVA Production
Included)
1929-1954

STATUS OF GEORGIA'S REFORESTATION JOB

Job Done — Area Planted —
1929-1954,
502,265 Acres



Job Ahead — Area in Need of Planting
3.5 Million Acres



3.5 MILLION ACRES OF GEORGIA LAND MUST BE PLANTED TO TREES TO BECOME PRODUCTIVE!

Reforestation

Georgia now leads the entire nation in the number of acres planted yearly to trees, and the production of the Commission's four seedling nurseries has placed the state in the lead in the Nation in the number of seedlings shipped from state nurseries.

During the 1953-54 planting season, output of seedlings from the four nurseries reached the record figure of 94,990,000 and during 1954-55, the seedling production is expected to reach another record with a total of 132,000,000. Thus during the two planting seasons of this report period, seedling distribution from the four nurseries is expected to aggregate more than 226 million—sufficient seedlings to reforest 250,000 acres.

The overall objective of the nursery and reforestation activities of the Commission is to produce sufficient seedlings to meet fully the demand in any planting season and to speed up the replanting of the three and one-quarter million acres of Georgia land that must be planted to trees to become productive. Since the start of nursery operations by the state in 1929, 502,265 acres have been planted to trees and more than half of these acres have been reforested since 1950. At the present rate of planting, it is anticipated that approximately 25 years will be required to approach the completion of planting activity in the state.

The Commission's four nurseries are strategically located for the production and distribution of seedlings to the landowners of the state and all nursery operations are highly mechanized to achieve high output at minimum cost. The four nurseries are the Davisboro Nursery in Washington County, the Herty Nursery at Albany, the Hightower Nursery near Dawsonville and the Horseshoe Bend Nursery near Glenwood in Wheeler County. The Horseshoe Bend Nursery was completed and placed in production during 1953 and made possible the record productions that have been attained.

The southwide shortage of good quality pine seed for planting continues as a major obstacle to the production of large seedling crops, and the Commission has expanded its cone collection and seed processing facilities on an unprecedented scale and has taken the lead in the South in this phase of reforestation activity.

A complete cone handling and seed processing center—mechanized for mass production—has been established on land adjacent to the site of the Macon Warehouse. This "pine seed factory" has a capacity of 40,000 bushels of cones per season and is geared to a daily output of 1,000 pounds of seed.

Cone collection operations in the field have been highly systematized to insure ample collections of good quality cones. Cones are gathered by individuals and groups throughout the state and sold through certified dealers to the Commission. This arrangement has been set up by agreement with private companies and other state forestry organizations seeking cones to the mutual advantage of all. Seed are kept separated according to forestry districts from which collected and seedlings grown from the seed are returned to the area in which the cones were obtained. Research has established the fact that within certain boundaries, seedlings grown from locally collected seed thrive better. Major cone collection points have been established at Macon and Baxley where cone drying sheds are operated.

During the past year, a seed testing laboratory was established at the Macon headquarters in cooperation with the U. S. Forest Service. This laboratory provides accurate forest tree seed germination tests for Georgia, and the other Southern states on a fee basis. The facilities will be available at cost to the U. S. Forest Service, other Southern states, industry and private seed concerns.

The need for better quality seed from known parent trees has existed in the South. Some of the reasons for obtaining better seed are: (1) Increased resistance to disease, (2) Increased growth rates, (3) Higher gum yield, (4) Site adaptability and (5) Better form. As a start on such a project, the Commission has acquired land and located trees with most of the desirable characteristics and started a "seed orchard" for pine trees. The limbs from the parent trees will be grafted to young seedlings and planted in the orchard. The objective is to continually expand the seed orchards until all seedlings produced in the state nurseries are grown from seed from superior trees.

Seedlings are furnished to landowners at a price below the cost of production and prices per thousand have been held to a minimum despite small increases that have been made mandatory by increasing costs of nursery operations. An attempt is being made to bring costs and sale prices nearer together.

Every effort is made to accurately forecast the demand for the different species, though this is exceedingly difficult. Comprising the bulk of the production for the past two years have been Slash Pine and Loblolly Pine. Other species produced were: Shortleaf Pine, Longleaf Pine, Eastern White Pine, Yellow Poplar, Black Locust, Eastern Red Cedar and Arizona Cypress.



Future forests for Georgia. Forty million seedlings reach to the horizon at the Davisboro Nursery in Washington County.

Requirements FOR SUSTAINED NURSERY PRODUCTION

Mass production of forest tree seedlings is an exacting and demanding operation — involving all the foreplanning, investments, skill in techniques, hazards and risks of large scale agriculture. Growing tree seedlings in Georgia's forest nurseries is mechanized agriculture — directed by men and guided by science. These three — men, machines and science — have combined to give Georgia its record seedling production and national leadership in tree planting. Ahead is the task of maintaining this production to meet the demand in quantity and species.

All the components of successful agriculture are essential to nurseries production of seedlings.

Water — the blood of agriculture — is vital to the seedling crop. Part of the nursery has deep artesian type wells and high capacity pumps which assure a full constant flow. Oxygenation delivers a gradual effective supply of water to the seedling beds.

Unceasing efforts are required to maintain high fertility in the growing areas. A growing cover of seedlings will remove far more nutrients from the soil than a stand of corn. Continual crop rotation is practiced, with cover crops being utilized to restore soil fertility.

A constant battle with rodents, birds, insects and diseases begins with the planting of seed in the nursery beds. Careful, expert supervision is essential to insure immediate detection of insect and disease attacks and the start of countermeasures. Often even prior anticipation is necessary for remedies to be fully effective.

Research becomes increasingly important in sustaining nursery production, increasing operating efficiency and lowering costs. This makes possible the fullest use of science in the growing of better planting stock.

Changes in the needs and demands of Georgia's forest industry call for an increasingly wide range of species in



Abundant water is vital to seedling production. Deep, ever-flowing well supplies must be augmented by heavy duty pumps.

Constant research—such as this fertilization study—must determine more improved methods of seedling production.

Species must be grown to meet demand. Here are Yellow Poplar seedlings.

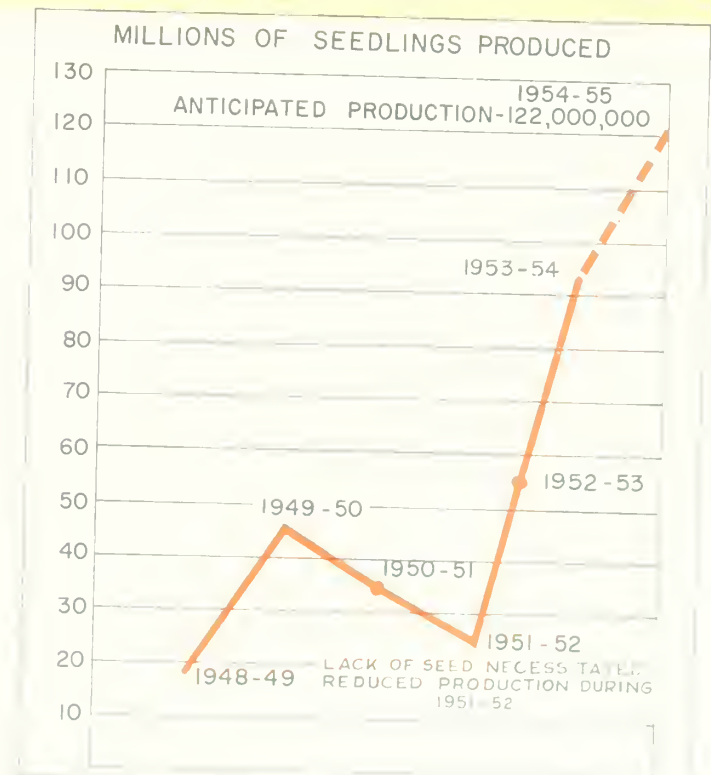
the nursery output. Nursery conditions and operations must be geared to the production of various species.

Machines and equipment must be adapted to the particular requirements of nursery operations. Equipment and fittings oftentimes must be designed and built originally by nursery personnel, and even standard machinery must sometimes be custom equipped.

Finally, the ceaseless vigil and careful handling of the seedling crop must be maintained round-the-calendar — through the spring planting, the summer growing period, the fall months of maturing and the winter season of lifting, grading, delivery and transplanting.

SEEDLING PRODUCTION GEORGIA FORESTRY COMMISSION NURSERIES

Georgia's tree seedling nurseries continue to establish yearly records for production from state nurseries and Georgia leads the nation in tree planting. Seedlings are supplied to land-owners at a price below the cost of production.



Nursery Operations



- Bed-shaper forms seed beds rapidly, providing optimum growing areas for tree seedlings.



- Mechanical seeder deposits exact amount of seeds to give full stands of seedlings in all beds.



- Sprays are used for grass and weed control and to combat disease and insect attacks upon the seedling crop.



- Tractor powered lifters cut the seedlings loose from the nursery beds prior to lifting for grading and shipment.



● Seedlings are carefully graded by trained crews to insure shipment of only healthy, disease-free, vigorous seedlings. As many as two million may be carefully inspected, packed, and shipped in a single day.



● Utmost care is exercised to insure survival of seedlings in shipment. Seedling bundles are packed in moist peat mass.



● During the planting season, trucks move out of all nurseries daily with loads of seedlings for landowners throughout the state. Rapid delivery is effected through combined efforts of nursery personnel and County Forest Rangers.



● Field personnel of the Commission—County Forest Rangers, Management Foresters, District Foresters—provide on-the-ground planting aid and advice to landowners.



Cone

Collecting and Processing

Cones must be gathered when ripe, but unopened.

Cones are gathered from field stations and delivered to drying sheds.

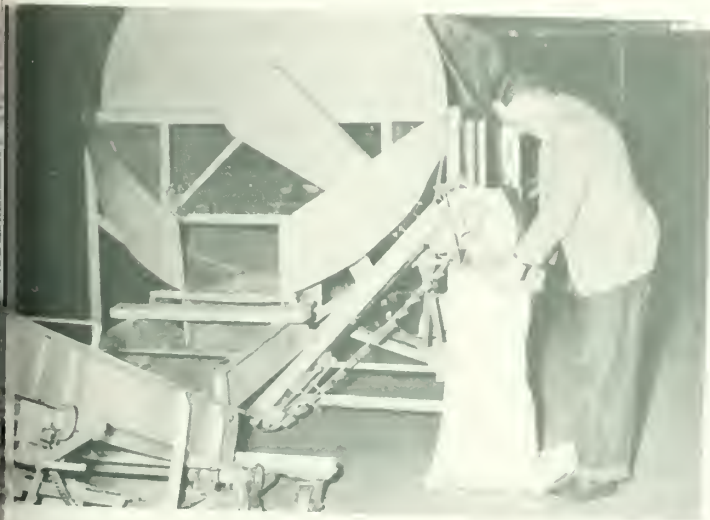




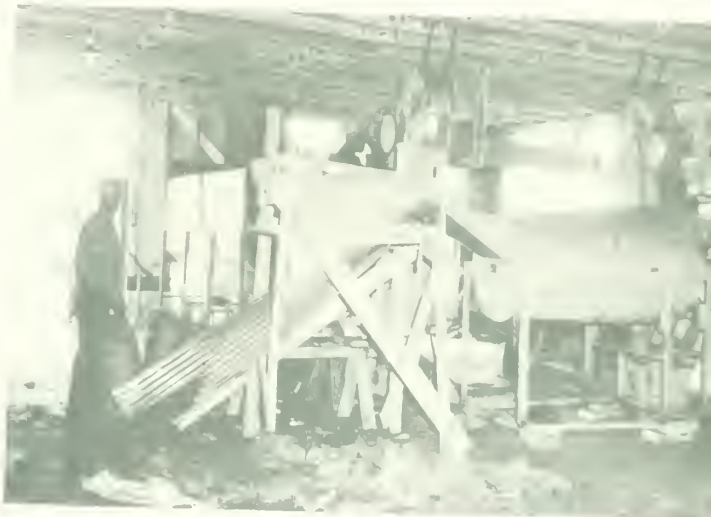
Drying sheds.



Cones transported on movable belt conveyors.



Cone Shaker



Seed Cleaner - Dewinger.



Cold storage for a 3-year supply of seed.



Precision germination tests are made on all seed lots.

Pine Seed Factory

The Commission's pine seed extractory and seed-testing station at the Macon Forestry Center is the largest in the South. The overall purpose of the cone collecting operations of the Commission is to alleviate the south-wide shortage of good quality pine seed and maintain the high level nursery production that has made Georgia the nation's pace setter in forest tree planting. Production is geared to an output of 500 pounds of dry seed per 8 hour period. Cone drying sheds are maintained at Baxley and Macon and efficient, time-saving and labor-saving assembly line methods are utilized in the complete process of drying cones, extracting, cleaning and storing seed, and precision germination tests.

REFORESTATION

ACCOMPLISHMENTS

1. Sustained nursery production of approximately 100 million seedlings yearly.
2. Improved soiling practices based on actual soil tests and plant requirements.
3. Seed Extraction Plant—Cone sheds and storage facilities make adequate seed supply possible.
4. Since 1929, 502,265 acres have been planted to trees in Georgia, 252,987 acres since 1950. 120,000 acres are expected to be planted during winter of 1954-1955.
5. Localization of seed source. Seedlings now being sent back to area where seed were gathered.

JOB AHEAD

1. To convert 3.5 million acres of unproductive forest acres into sustained maximum production of timber. Best accomplished by planting.
2. To improve the seed being planted in the nurseries through selection of better trees for collecting seed and establishment of seed orchards. This is now being started. It is expected to require at least 3 to 5 years to complete this project.
3. Better survival of seedlings planted in the field. There are two ways of accomplishing this: first, through producing increasingly better growing stock in the nursery; second and most important, more supervision and training of planting crews.

DISTRIBUTION OF PLANTING STOCK, 1953-54

	Number of Seedlings
Pulp and Paper Industries	
Planted on Industrial Lands.....	31,508,500
Distributed for Planting on Private Lands.....	11,079,500
Total.....	42,588,000
Lumber Industry	5,213,000
Novol Stores, Plywood, etc.....	3,743,000
Other Industries	2,276,500
Private Owners.....	34,474,600
Federal Government	992,000
State, County and Other Public.....	763,000
Shipped Out of State, Miscellaneous.....	4,941,375
GRAND TOTAL.....	94,991,475

NURSERY PERSONNEL

	1953	1954
Technical Foresters.....	1	3
Trained Personnel	10	12

NURSERY REPORT PRODUCTION AND COST

	1953-54	1954-55
Number of Nurseries.....	4	4
Number of Seedlings.....	94,991,475	122,000,000
Cost Per Thousand.....	\$ 3.17	\$ 3.18

*Estimated production

†Does not include additional costs such as land and depreciation of buildings.

SEED ON HAND OR BEING PROCESSED

Species	Amount in Pounds	
	1953*	1954
Slash	21,417	29,000
Loblolly	9,863	9,000
Longleaf	2,002	1,250
Shortleaf	320	270
Poplar	1,000	
Red Cedar	249	880
Arizona Cypress.....	100	
Black Locust	120	

*Planted or on storage

†On storage or being cleaned



Information And Education

Purposes of

Information and Education

1. Fostering Complete Public Understanding and Active Public Support of the Commission's Program.
2. Forest Fire Prevention. Both on the Local Level and in Cooperation with the National Cooperative Forest Fire Prevention Campaign.
3. Helping to Develop Legislative Support for Forestry.
4. Informing Landowners as to Best Available Markets for Forest Products.
5. Providing Forest Management Information.
6. Interpret the Findings of Forest Research for the Public.
7. Enlisting Support of Press, Radio, Television, Periodical Publications and Other Media in Forest Conservation.
8. Public Accounting for State's Investments in Forestry.
9. Teaching Forest Conservation to the Youth of Georgia.
10. Cooperating with Private Forestry Organizations and Public Agencies in Conservation Efforts.

The ultimate success of the entire program of the Commission is dependent upon full public support, which can be derived only from a fully informed citizenry. This public understanding and cooperation is essential to forest protection and development in any area of the state. To assure this full public understanding, active participation, and complete support is the primary objective of the Commission's information and education activities.

The Commission's information and education work serves three other vital purposes. First, it provides the means for the Commission, as a tax-supported, public service agency, to keep the people informed as to the activities, accomplishments and objectives of their state forestry organization, and to render an accounting for the funds expended. Secondly, the prevention phase of fire protection entails public education to maintain a constant public awareness of forest fire danger and destructiveness, and a constant guard against the outbreak of wild fires. Third, public education provides the means by which the findings of forest research are translated into progressive woodland management practices of public benefit.

Through use of a full range of colorful and attention-getting media, the Georgia citizen is continually apprised of the value of the state's forestland, the urgency of the constant practice of fire prevention, the advantage of sound forest management, and methods of profitable marketing of forest products. Among the media employed are daily and weekly newspapers, radio, television, sound color movies, woods demonstrations, exhibits and window displays, signs on highways and at other strategic locations, talks and personal appearances, literature distribution, programs in schools, civic clubs and other organizations, commercial film shorts, informational letters and personal contacts with landowners and key persons.

All these activities help inform the public of the excellent returns, not only financial, but also of the more intangible types, which are derived from the operation of County Forestry Units and from following the prescribed management rules of good forestry.

Overall plans, and the equipment and activities which will be required are determined and assembled by the Atlanta Office's Information and Education Division. This division also services and maintains the Information and Education equipment in the field and works with Rangers and District Office personnel in carrying out county and district on-the-ground activities.

Information and education work of the Commission has, in the last biennium, reached the highest scope in history—in scale of planning, in volume of activity, and in effectiveness of the effort.

The state's press and radio television stations continued during 1953 and 1954 to play a leading role in dissemination of the Commission's information and education material. Daily and weekly newspapers continued to allot large percentages of their news space, especially during extremely dangerous forest fire periods, to descriptions of Commission activities. Forest fire stories were not alone in the prominence displayed by newspapers, but Rangers' regular columns also imparted to the public much advice and information on forest management. The number of news articles published in the state as a result of Commission activities increased from 8,905 in 1952 to 9,008 in 1953 and to 9,876 in 1954.

These articles included a regular weekly article, pre-

pared in the Atlanta office and distributed to each County Ranger for presentation to newspapers in his local area. In addition, large numbers of articles, editorials, photographs, and mats were sent to newspapers, magazines, and other periodicals throughout the state and nation.

Increasing enthusiasm on the part of the press for issuing special Keep Green forestry editions was noted, with 105 such editions being printed in the past two years. Further cooperation by the state's newspapers has been evidenced in the use of forestry mats prepared by American Forest Products Industries and the Cooperative Forest Fire Prevention Program.

Georgia's radio stations have shown similar cooperation, devoting extensive sessions of radio time to forestry activities as a free public service. Many stations feature a "Forestry Time" program, in which County Rangers present latest news and timely announcements on the County Unit's activities as well as vital information on tree farming and other phases of forest management.

Radio stations throughout the state continued enthusiastic use of the Commission-produced series of radio platters, featuring the "Swingbillies." These are fifteen-minute programs, featuring music and live forestry announcements of pertinent local interest and effectiveness. The Commission expended its radio platter program even further in 1954, and produced and distributed another similar series, "The Musical Forest Rangers," consisting of a 52-week series.

Radio platters furnished by the Cooperative Forest Fire Prevention Program provide additional series of recordings, many of them featuring nationally-known entertainers.

Further cooperation was offered by radio stations through use of more than 11,000 spot announcements. Many of these announcements were given timely use during critical forest fire danger periods and served to avert the loss of thousands of acres of forestland to the ravages of wildfire. Each district has use of a recording machine, which is used to make tape recordings in the field for use on local radio stations.

Great strides were made in the field of forestry education via the television airwaves during 1953 and 1954. A number of stations carried forestry programs presented by the Information and Education Department, district personnel, and rangers in various counties.

These tele-demonstrations show viewers methods of forest tree planting, marking trees for selective cutting, and other forest management procedures. Actual spraying of trees and use of the increment borer are shown on many programs. Fire control and fire suppression also are visibly demonstrated, with TV viewers seeing both hand tools and mechanized equipment in action. Use of the alidade is demonstrated, and interest of the younger audience often is captured with the appearance of a live Smokey Bear or of one of the bloodhounds used by the Commission's law enforcement personnel.

Thousands of Georgians also have gained valuable knowledge of forestry through films provided television stations by the Georgia Forestry Commission. Special slides with fire prevention messages have served the same purpose in television as spot announcements in radio, with doubled effectiveness. Scenes of a North Georgia forest fire emergency were shown on nationwide television screens the day after filming, and served to make Georgia citizens

(Continued on page 52)

(Continued from page 51)

assume an increased sense of responsibility in forest fire prevention.

Popularity of "Georgia Forestry," the Commission's monthly publication, continues to grow, and the magazine now is distributed to more than 9,000 Georgia citizens. The "Ranger Record," essentially a house organ, is distributed quarterly to Commission personnel.

Visual education continues to play a large part in Information and Education work, and every district now has in use two motion picture projectors, and a slide projector. In addition, a number of automatic slide projectors known as "selectroslides," are extensively utilized in exhibit displays.

"Forest Diseases and Insects of Georgia's Trees," an attractive, highly illustrated booklet, was published during the past year and has received wide acclaim as the outstanding publication of its type. The booklet was presented in a manner suitable for use by foresters, landowners, and the general public.

Another project was the production of a forestry teaching manual, which was supplied to Vocational Agriculture teachers.

Integration of press and school activities in forestry was seen in a special Commission project entitled, "Our Schools Today." The project consisted of a newspaper educational series of articles which served as teaching guides for elementary and high schools.

Definite results in the form of increased public cooperation in management and fire control activities have come from the showing of Commission portable type exhibits. Now numbering 55, the exhibits are utilized most heavily during the annual Georgia fall county fair season. By intensive, full-scale use of these exhibits, attractive showings are made at all major fairs and nearly all county fairs. A large exhibit employing the use of colored photographs and flashing lights has been designed to emphasize the services offered the public by the Georgia Forestry Commission. Hundreds of thousands of persons have viewed this one exhibit alone in the past two years, and it has proved highly effective.

(Continued on page 54)



Sound color moves on all phases of forestry teaching prevention and woodland management to many thousands of Georgians every year.



The Commission's field personnel work extensively with Georgia's school children—the most important audience for forestry education.



TV stations throughout the state present many Commission programs.



Georgia's radio stations take a leading role in promoting fire protection, reforestation, and forest management.



Woods demonstrations teach proper harvesting, marketing and utilization.

City Issues State Forestry Department

Fire Rages Through Colquitt Timberland

Forestry Notes

5000 Many Acre Acres in Jones

Trees And Tree Farmers

"F In



Growing Army Battles Wildfires in Georgia

Research Center Added To Georgia Forestry Program

Lee 4-H Clubs Will Sponsor "Tree Day"

This Section Plans Demonstration Nov. 17

Rangers Spread On Forest Wild

Two Homes Four In Weekend Of Fire

ACTION URGED BY GRAND JURY LETTING FOREST FIRES

Presentments Made Wednesday

Commission personnel work closely with the press of the state—editors and publishers give unprecedented support to forestry.

Conjure Causes

Me. District Planters Available To Cattle Forest Farmers

Caution Urged During Forest Fire Season

So. Week Jelochi Dr.



Festivals, community observances and youth group activities serve to concentrate public attention upon forest protection, reforestation, and woodland management.



(Continued from page 52)

During the past year, ten additional exhibits employing the use of lighting and motion have been constructed. These have been used in all areas of the state with signal success, and have been viewed by an estimated million persons.

The Commission has cooperated with many national, statewide and local projects featuring the forestry theme. Among such were the Keep Georgia Green Contest sponsored annually by the Georgia Forestry Association in which cash prizes are given counties with the best record in forest fire prevention.

The Commission again in 1953 and 1954 conducted the Boys Forestry Camps for Future Farmers of America. The annual camps are sponsored by Georgia members of the Southern Pulpwood Conservation Association, including the Macon Kraft Company, Union Bag and Paper

Corporation, Brunswick Pulp and Paper Company, Gair Woodlands, and St. Mary's Kraft Corporation.

The Commission in 1954 designed and placed in use a series of large wall murals at the University of Georgia School of Forestry. The murals depict every phase of Commission activity, including management, fire control, reforestation and information and education.

Special concentration and effort was given in the last two years and will continue to be given toward information and education work in counties not yet under organized forest protection. This work is directed both toward the objective of extending protection to these counties and also in the belief that unless Georgia's entire population is aware of the importance of its forest resources, the Commission's overall objectives cannot be completely realized.

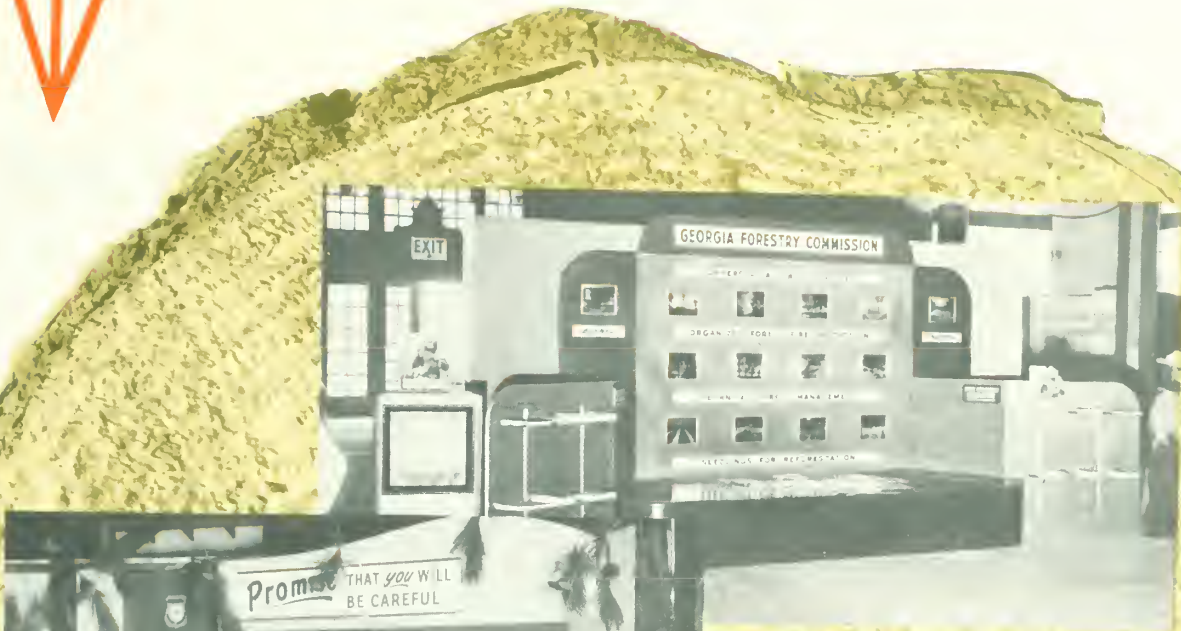
Many Georgians receive additional reminders of the

importance of forestry to their state through the 649 highway signs the Commission has placed in use throughout the state. Not only Georgians, but visiting tourists as well, are thus given frequent fire prevention and forest conservation reminders.

Special observances in the field of forestry and hundred phases of conservation were supported through information and education activities. Such observances included Arbor Day, Keep Georgia Green Week, Soil Conservation Week, and Fire Prevention Week. Last year the Commis-

sion cooperated with the Georgia Extension Service in a Tree Appreciation Day, a special Extension Service Project. More than a million forest tree seedlings from the Commission's nurseries were planted by Georgia schoolchildren on that day.

Tabulations of information and education projects during this biennium show a continually increased and intensified tempo of activity. It is estimated that during the past two years 95 out of every 100 persons in the state have been reached with an effective forestry message.



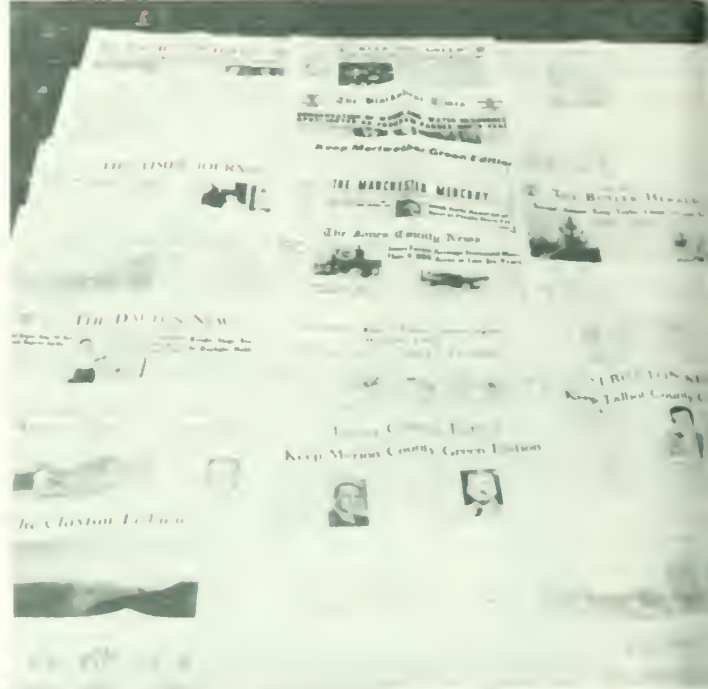
More than a million Georgians each year view Commission exhibits and displays at county, state, and regional fairs, at community events, and in public buildings.





"Georgia Forestry"—the Commission's monthly publication, has been improved and continues to receive enthusiastic public reception. Circulation, public readership, and effectiveness of the publication are constantly increasing.

More than a hundred special "Keep Georgia Green" and forestry editions of daily and weekly newspapers have been published in the last two years.



Boys Forestry Camps are conducted each summer by the Commission for Future Farmers of America. Thousands of Georgia farm youths learn practical forestry at these camps and others in which Commission personnel participate.

Foresters and Rangers of the Commission effectively place millions of posters, pieces of literature, and other forestry promotional materials.



Personal field contacts with landowners, timber operators and woods workers are highly effective in fire prevention.

More than 1,000 Commission signs dot Georgia's highways, forested recreational areas, and sites of conservation installations, emphasizing the magnitude and benefits of the forestry effort and fostering public support.



INFORMATION AND EDUCATION

ACCOMPLISHMENTS

1. Record number of news releases, mats, photographs and magazine articles, built around themes of fire prevention, forest management and Commission activities published. Editorial support increased. Use of medium of newspaper cartooning initiated.
2. Great expansion of use of television throughout the state.
3. Intensified and broadened fire prevention work. Started the formulating of detailed fire prevention plans on the county level.
4. Record use of radio by Commission personnel.
5. Completion of 10 major forest fire prevention exhibits and dozens of minor exhibits, which were displayed in fairs, store windows, and agricultural and other special events throughout the state.
6. Addition of 10 new tape recording machines to I & E field equipment, resulting in far more effective and efficient radio forestry programs on the part of the Commission personnel and in a greater scope of Ranger training activity.
7. Addition of other I & E training and demonstration aids, including ten movie projectors, ten slide projector machines and ten automatic electroslide machines, for use in exhibits and store windows.
8. Expansion of Commission's film library to meet steadily increasing number of requests from Rangers, schools and civic organizations.
9. Production of a 52-week-a-year series of radio platters featuring the "Musical Forest Rangers."
10. Production and distribution of a 44-page booklet, "Forest Diseases and Insects of Georgia's Trees."
11. Production and distribution of "Georgia Forestry," Commission monthly publication, to more than 9,000 Georgia Citizens.
12. Quarterly production and distribution of "The Ranger Record" to Commission personnel.
13. Production and distribution of special forestry training manual now widely used over Georgia by vocational agriculture teachers.
14. Unparalleled cooperation with school officials and school teachers of Georgia in acquainting youth of the state with forest facts and potentialities.
15. Continued cooperation with Georgia members of Southern Pulpwood Conservation Association in conducting annual Boys Forestry Camp for Future Farmers of America.
16. Cooperation with Georgia Forestry Association in carrying on annual Keep Georgia Green contest.
17. Promotion of such special observances as Arbor Day, Keep Georgia Green Week, Soil Conservation Week and Fire Prevention Week.

JOB AHEAD

1. Gain increased cooperation with all informational media, including press, radio and television, particularly in field areas on the local level.
2. Continued intensification and expansion of fire prevention efforts — planning techniques adapted to local level. Continue full cooperation in national Cooperative Forest Fire Prevention Program.
3. Preparation and completion of additional exhibit materials to give increased scope to Commission's educational activities at fairs and at special community events.
4. Continued increase in television activities and assembling of TV materials and plans.
5. Further expansion of Commission's film library, with obtaining of additional outlets for film showings.
6. Expansion of Commission's Information and Education office personnel, with eventual placing of one I & E forester in each district in the state.
7. Continued production of forestry radio material designed to reach large audiences of the general public, such as was exemplified in the "Musical Forest Rangers" series.
8. Continued improvement of regular Commission publications, along with increased emphasis on special bulletins and publications designed to meet special problems and needs.
9. Bringing before the public the needs and accomplishments of forest research activities in the state.
10. Enlargement of the current school program, with an ever-increasing emphasis on bringing before teachers various methods of integrating forestry in the classroom curriculum and acquainting teachers with the various teaching aids offered by the Commission.
11. Continued cooperation with other forestry agencies and forest industries of the state.

	1953	1954
Number of Talks	1,218	1,271
Attendance	46,012	47,203
Number of Films	692	994
Attendance	63,070	69,712
Combination Talk & Film	670	705
Attendance	49,330	48,400
Radio & TV Programs	2,635	2,680
News Articles Published	9,008	9,876
Literature Distributed	1,517,020	2,050,876
Number of Demonstrations	435	449
Attendance	24,802	25,609
Exhibits	1,481	1,612

	1953	1954
Informational Letters	25,381	26,001
Informational Phone Calls	16,412	18,857
Personal I & E Contacts	173,502	174,855
Meetings Attended	4,112	4,209
Movie Shorts Shown	1,093	1,733
Attendance	1,016,233	1,117,120
Radio Spot Announcements	4,449	6,857
Special Forestry Newspaper Editions	51	54
Highway Signs in Use	620	649
Photos Published	721	733
Radio & TV Stations Carrying Programs	70	76
Landowners Contacted	41,509	60,435



Research





Forest genetics — grafting studies are designed to produce superior trees.



Hardwood Control—The Commission has initiated experiments in clearing scrub hardwoods with this brush cutter and planting with pine.



Pine Seed Orchards such as this will be established on selected areas over the state. The orchards will provide seed from superior trees for planting in nurseries.

Research

Research is the springboard to a new era in Southern forestry—the key to advancement and progress. Recognizing this, the Commission has initiated an ambitious and intensive program of research.

Cooperative effort—an essential factor in efficient resource research—characterizes the Commission's research activities. In cooperation with the Georgia Forest Research Council, the Georgia School of Forestry, the U. S. Forest Service, and private industry, the Commission has planned and begun studies of forest genetics, hardwood control, prevention and control of insects and disease damage, and the establishment of pine seed orchards. These four projects represent a beginning of forest research. The beckoning opportunities demand that this phase of forestry be continually broadened and intensified.

The Georgia Forest Research Council, founded during the past year, has assumed leadership in forestry research in the state. The prime immediate need in the continuing leadership of this group is that of an annual appropriation to insure the continuance and expansion of the advancement already achieved. The rich dividends which can be realized through this coordinated, progressive research program of the Council render it imperative that adequate financing be established.

A new research center has been established at the site of the Commission's Macon Warehouse and office and greenhouse facilities have been erected through cooperative efforts. These provide headquarters for the Hitchiti Research Center and for personnel on the Research Council.

With the start of these new forest research operations begins a new day in forestry advancement in the state. Altogether more than \$100,000 is being expended yearly in Georgia on research projects in which the Commission is cooperating. From these studies will come increased forestry benefits and a better way of life for all Georgians.



Administration

Administration

Concurrent with the Commission's progress in fire control, forest management, reforestation and information and education has been a continuing effort toward improvement of administrative procedures and practices. The objective has been administrative streamlining—an essential for the operation of a broadened and expanding state forestry organization. To meet the varying demands of the large-scale, widespread activities of the Commission and to satisfy the intricate requirements of business and modern state government, the most advanced methods have been instituted, and new procedures and devices have been continually improvised and placed in use.

Administration reaches throughout the chain of the Commission and provides the connecting links of organization. All branches and districts must correctly employ standardized, efficient methods of records keeping and personnel management.

During the period of this report, the State Merit System

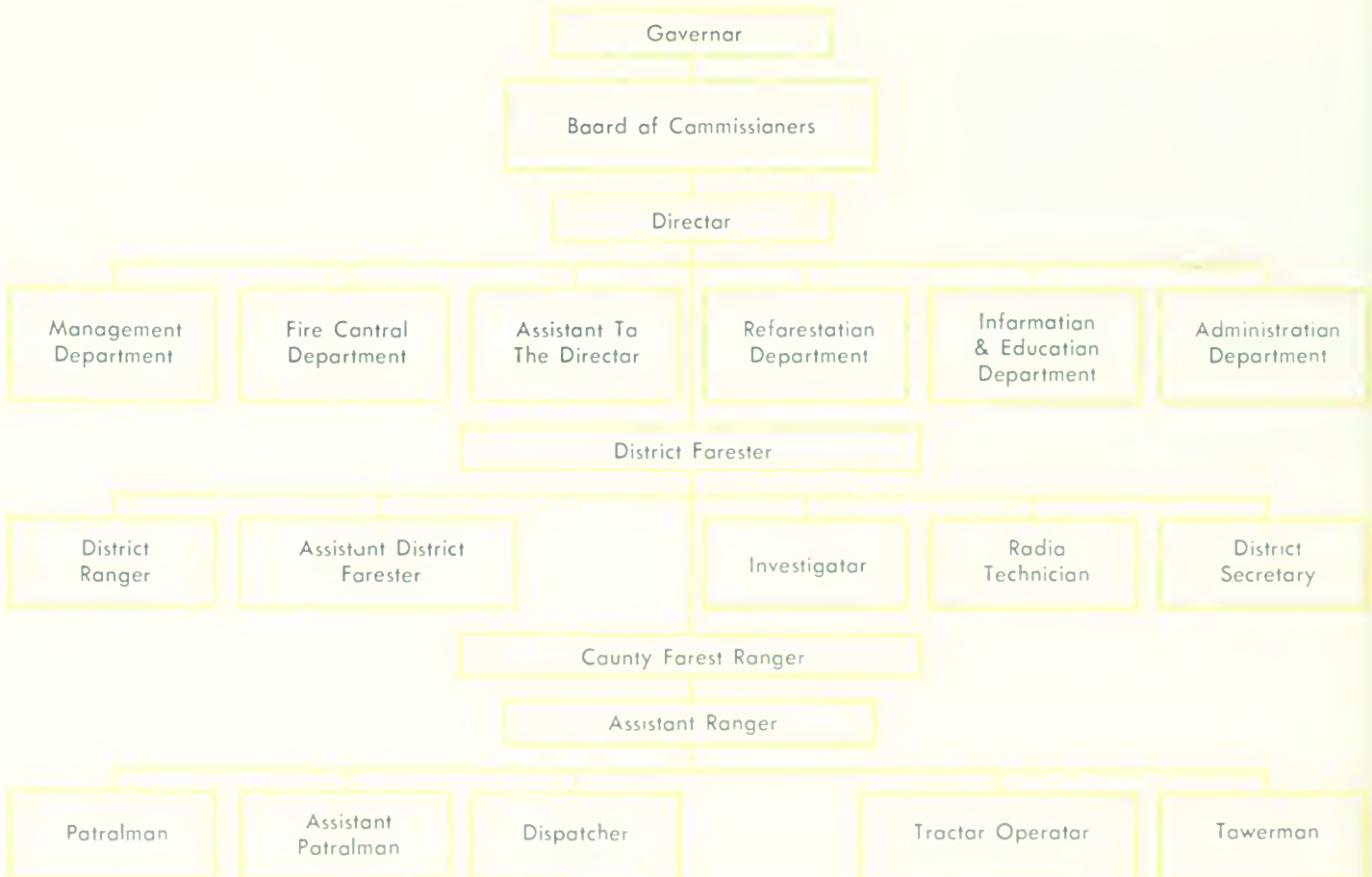
has been placed in effect in the Commission, covering graduate technical foresters down to the level of County Forest Rangers. The State Retirement System was instituted simultaneously, covering all permanent employees on a voluntary basis.

A standardized, uniform system of personnel management was placed in service covering all employees. Job classifications, qualifications, and pay scales were established.

Four new district headquarters buildings have been constructed during the past two years—at Newnan, Waycross, Gainesville and Washington, bringing to eight the total number of such new offices now in use.

An administrative radio network has been placed in use providing direct communications between the Atlanta Office, and District Offices and the Macon Fire Control Headquarters and Warehouse. This radio system utilizes a special frequency and makes possible rapid, inexpensive communications on administrative matters while reducing traffic on the two-way fire control radio system.

GEORGIA FORESTRY COMMISSION Chart of Organization



Financial Report

(EXTRACTED FROM PUBLIC REPORT OF DEPARTMENT OF AUDITS)

YEARS ENDING JUNE 30TH

INCOME RECEIPTS	YEAR ENDED JUNE 30TH	
	1953	1954
State Revenue Allotment	\$1,840,467.00	\$1,813,500.00
Federal Grants	652,739.58	535,465.26
County Protective Units	494,521.71	656,228.14
Other Income	219,293.71	337,472.63
Total Income Receipts	\$3,207,022.00	\$3,342,666.03
Less: Transfers		
Herty Foundation	30,000.00	30,000.00
Department of Mines, Geology	2,600.00	2,600.00
University of Georgia	1,292.00	1,621.61
Net Income Receipts	\$3,173,130.00	\$3,341,687.64
 EXPENDITURES—BY ACTIVITY		
Administration	\$ 540,207.16	\$ 608,046.44
Counties	2,246,337.62	2,274,144.39
Nurseries	343,947.61	361,863.94
Coastal Flatwood Land Use Area	22,735.90	17,604.52
Total	\$3,153,228.29	\$3,261,659.29
 EXPENDITURES—BY OBJECT		
Personal Services	\$1,650,696.31	\$1,824,302.75
Travel Expense	83,101.03	71,338.54
Supplies, Materials	358,896.72	404,761.28
Communication	37,996.47	43,493.32
Heat, Light, Water, Power	16,152.76	19,914.18
Printing, Publications	15,585.22	19,616.05
Repairs	87,057.97	62,420.06
Rents	2,652.19	2,233.33
Insurance, Bonding	862.28	161.29
Pensions (To Employee Retirement System)	231.00	27,601.86
Indemnities	2,203.18	3,196.80
Equipment	249,493.20	263,803.37
Miscellaneous	5,398.83	215.60
Total Expense Payments	\$2,510,327.16	\$2,773,058.43
Outlay:		
Land, Buildings and Permanent Improvements	266,936.81	199,391.57
Equipment	375,964.32	289,209.29
Total Cost Payments	\$3,153,228.29	\$3,261,659.29
Excess of Income over Expenditures	\$ 19,901.71	\$ 80,028.35
Excess of Expenditures over Income		
Number of Employees at June 30th	587	625



CURRENT BALANCE SHEET
JUNE 30, 1954

ASSETS

Cash in Bank	\$ 226,408.21	
County Assessments due not uncollected	26,653.20	
Due from U. S. Government	3,088.00	
Due from State Parks Department	1,051.41	
Due from Sale of Seedlings	737.38	
Expense Account items disallowed	2.00	\$257,940.30

LIABILITIES, RESERVES, SURPLUS

LIABILITIES

Accounts Payable		\$ 41,863.55
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RESERVES

Outstanding Purchase Orders	\$ 77,134.14	
Contracts to mature	33,573.23	
Workmens Compensation	4,682.30	
County Deposits Unexpended	79,705.08	
Seedlings not delivered	15.00	
Escrow Account, Performance Bonds	3,691.00	198,800.75

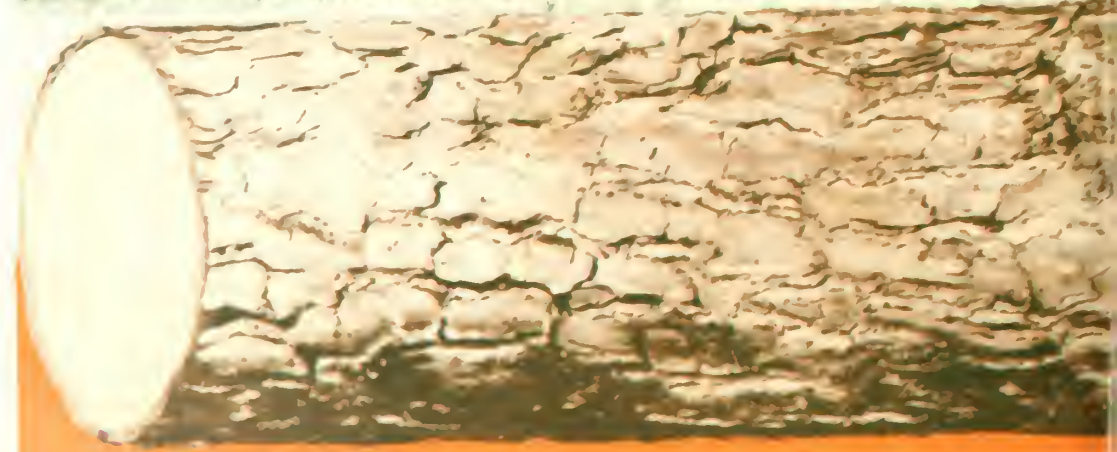
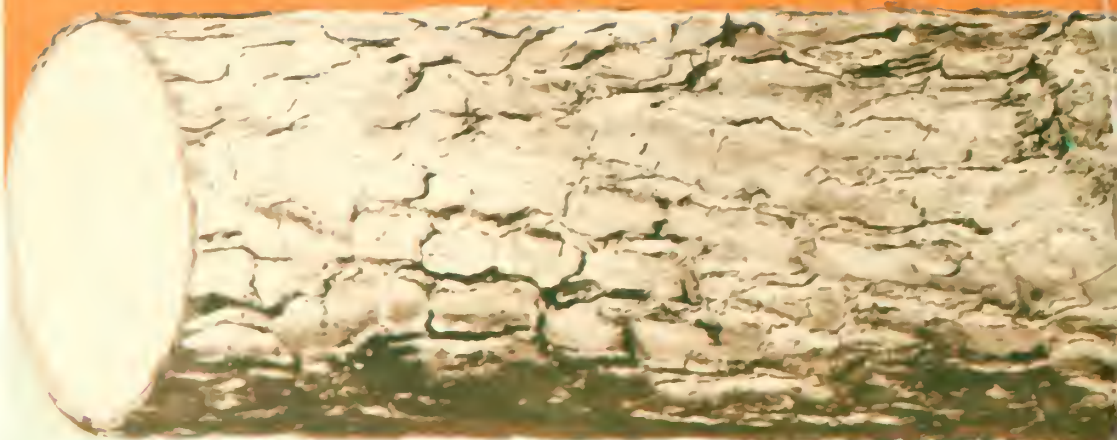
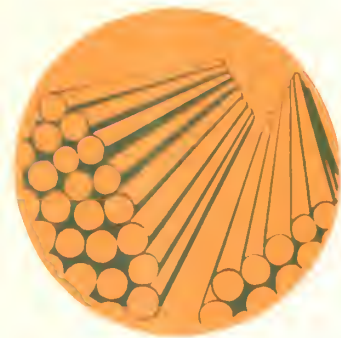
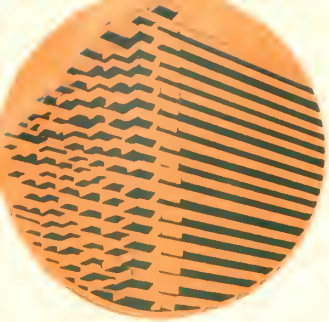
SURPLUS

For Operations		\$ 240,664.10
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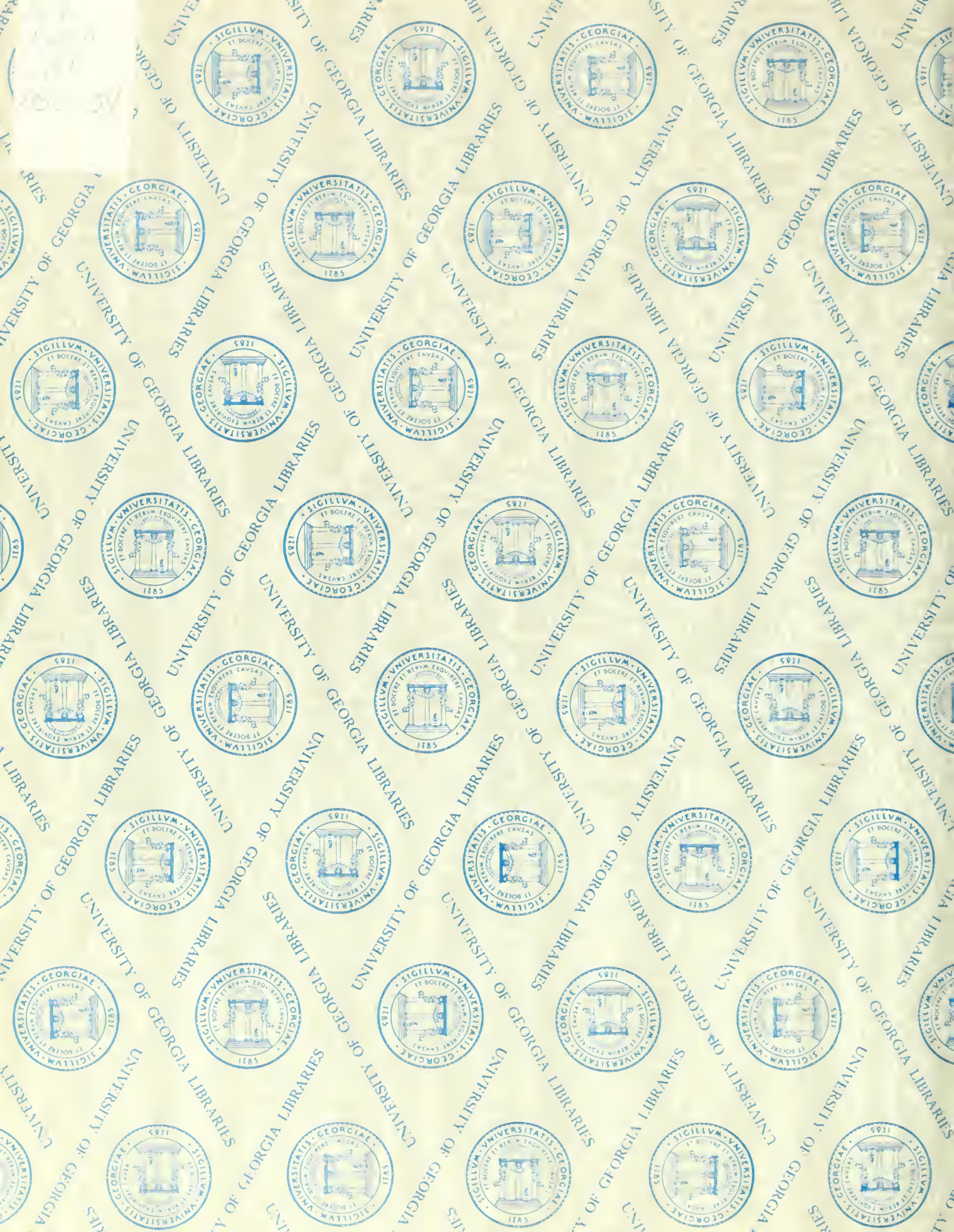
NOTE:

Inventories of equipment and supplies on hand at June 30, 1954 are as follows: (These inventories are not included in above figure)

1. Macon Warehouse		17,276.20
2. Macon Shop	\$ 63,930.79	
3. Radio	36,976.68	
4. District Office Warehouses:	6,930.26	
No. I	\$ 2,291.37	
No. III	215.07	
No. IV	188.30	
No. V	2,051.68	
No. VII	5,788.30	
No. IX	1,151.85	
No. X	2,644.99	\$ 122,169.29







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